



MICHIGAN DEPARTMENT OF TRANSPORTATION

**State Long Range Transportation Plan
2005-2030**

**Finance
Technical Report**

Final for Leadership Team Review

*Prepared by
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of Transportation
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With assistance from



Wilbur Smith Associates

MI Transportation

MICHIGAN LONG RANGE TRANSPORTATION PLAN



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Executive Summary

Purpose:

The *Finance Technical Report* provides information on the federal and state laws that govern the collection and distribution of transportation revenues in the state of Michigan and provides an estimate of the funds available to the Michigan Department of Transportation (MDOT) to support its transportation system.

A few highlights of the report are provided in the following sections.

Federal and State Funding:

Federal funding for improvements to the surface transportation system is largely derived from excise taxes levied on the sale of motor fuel, large trucks and trailers, truck tires and the use of heavy vehicles. These taxes are deposited in the Highway Trust Fund (HTF). The funds within the HTF are distributed to federal programs and to the states by formulas established in the authorizing legislation.

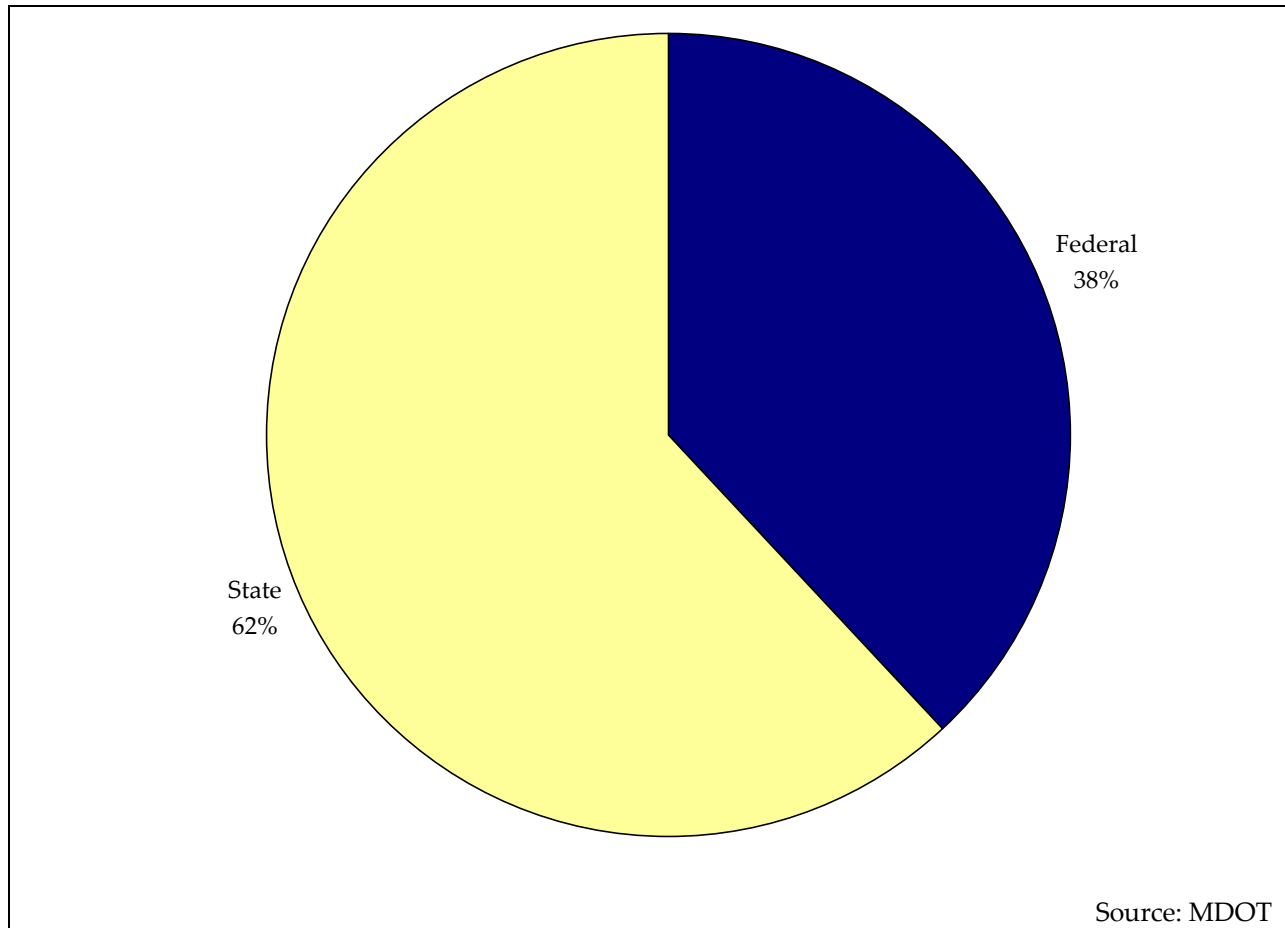
- Federal aid accounted for approximately 37 percent of all MDOT revenues in FY 2005.
- In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) reauthorization was signed into law authorizing \$6.5 billion in apportioned funding for Michigan's transportation system for FY 2005 through 2009.
- SAFETEA-LU increased Michigan's rate of return on every dollar sent to the federal Highway Trust Fund Highway Account from 90.5 cents to 92 cents.
- SAFETEA-LU contained 171 earmarked transportation projects, with a value of \$643 million. SAFETEA-LU earmarks provided financial support for inter-city passenger, rail, and aviation projects and programs
- SAFETEA-LU contained about \$120 million in transit assistance for Michigan.

Sixty-two percent of MDOT's funding in 2005 was generated at the state level and managed through the Michigan Transportation Fund (MTF). The MTF is the distribution fund for transportation revenues. Public Act 51 of 1951 known as "Act 51," mandates how these funds are distributed and spent. The two main sources of state funding are vehicle registration taxes and motor fuel taxes.

- Michigan's current gasoline tax rate is 19 cents per gallon. This tax is fixed per gallon of gasoline sold and is independent of the price of gasoline. The current diesel fuel tax rate is 15 cents per gallon.
- Act 51 mandates how transportation funds are distributed between units of government or between states, cities and counties and the order in which programs receive funding.
- The State Trunkline Fund (STF) receives 39.1 percent of the remainder of the MTF after several appropriations are made directly to specific programs and jurisdictions

- The Comprehensive Transportation Fund (CTF) receives up to ten percent of the MTF, but only after the specific statutory deductions are completed. The resulting share for CTF is a little over eight percent.

The figure below shows the percent of federal and state transportation funding (all modes) that was appropriated to MDOT in FY 2005.



The table below summarizes the state and federal financial baseline amounts, which will be used for forecasting future transportation by mode. These amounts represent Fiscal Year 2005 funding levels with the exception of the state transit and state intercity passenger and freight program amounts, which were established using the Fiscal Years 2001 through 2005 annual average.

<i>Program</i>	<i>Federal</i>	<i>State</i>	<i>Total</i>
Highway Capital and Maintenance Program	\$689.5	\$751.3	\$1,440.8
Transit Program	\$23.8	*\$185.8	\$209.6
Intercity Passenger and Freight Program**	***\$1.4	*\$20.4	\$21.8
Aeronautics Program	\$103.4	\$11.0	\$114.7
<i>Total MDOT Transportation Revenue</i>	<i>\$818.1</i>	<i>\$968.8</i>	<i>\$1,786.9</i>

* Calculated using FY 2001 through FY 2005 annual average.

** Includes Intercity Bus, Passenger Rail, Rail Freight and Marine/Port programs.

*** Dedicated entirely to the Intercity Bus program. No baseline revenue for the Passenger Rail, Rail Freight or Marine Port programs.

Federal and State Funding Trends:

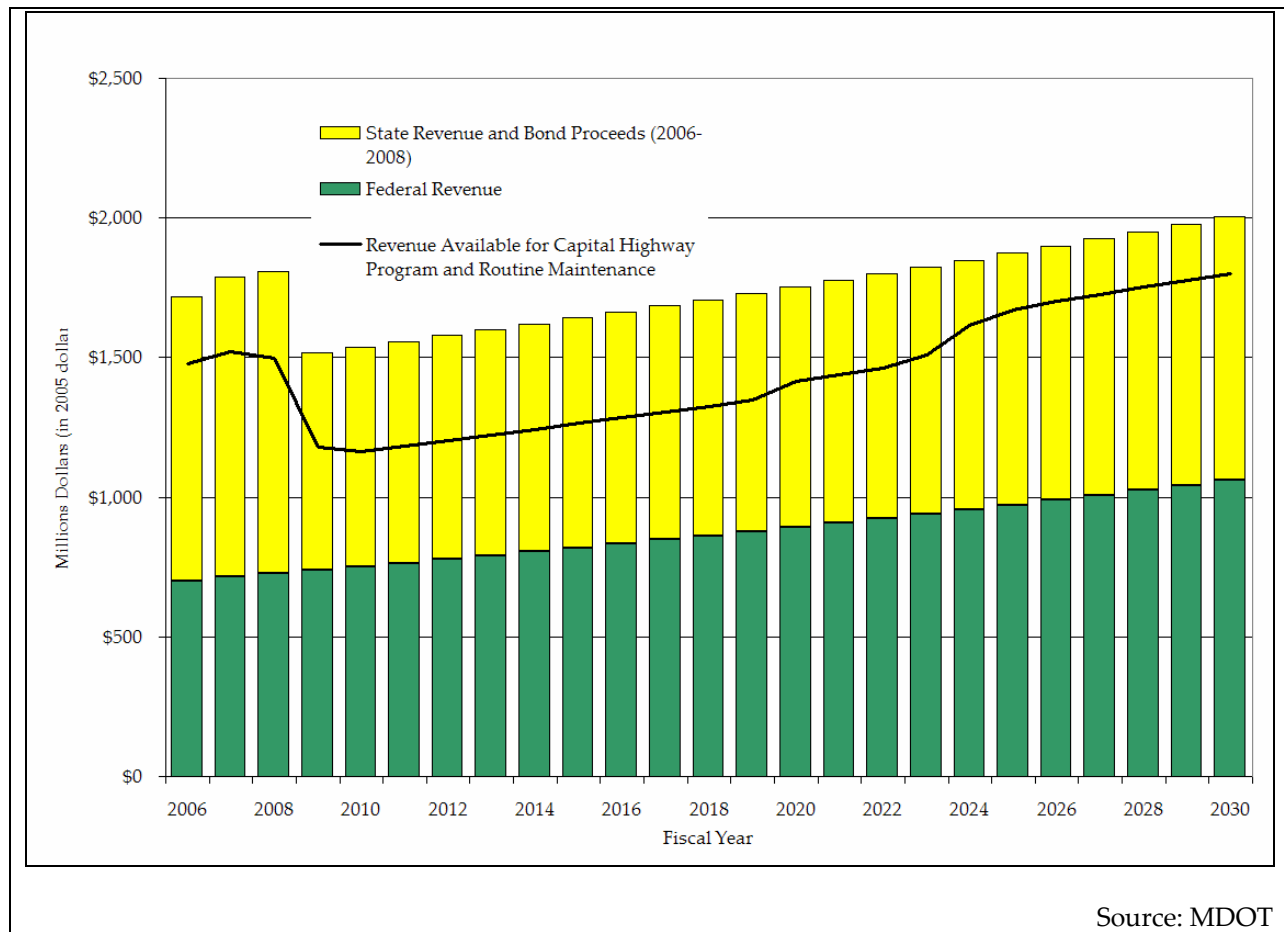
Federal and state funding for highways has grown over the last 20 years. Over the TEA-21 period 1998 - 2003, federal revenues to MDOT peaked in 2002. During the SAFETEA-LU time period, 2005 - 2009, federal revenues to Michigan are expected to increase at a rate of 3.6 percent. State revenue growth is largely a result of vehicle registration tax increases due to vehicle price inflation. However, fuel tax revenues have remained fairly level in recent years.

SAFETEA-LU provides a record level of federal transit funding, \$52.6 billion over six years (2004-2009), which is an increase of 46 percent over the amount in TEA-21. The Comprehensive Transportation Fund provides state funding for local transit, and a variety of other programs. While the revenues within the CTF have grown historically, they have been inconsistent in recent years; revenue was redirected to the General Fund and the STF. The reductions have impacted programs, which rely on CTF funding.

Revenues for aviation are largely from the federal government, through the Federal Aviation Administration. For FY 2006, Michigan is anticipating up to \$120 million in federal funds for airport capital improvements and development. The State Aeronautics Fund is the state source of funds for aviation projects at Michigan airports. The aviation fuel excise tax generates the greatest share of revenue to the fund. At three cents per gallon, the tax has not been increased since its inception.

Federal and State Revenue Forecasts:

Fiscal Year 2005 revenues and past trends by mode were used as a basis for future funding projections. The figure below reflects the total anticipated federal and state revenue forecast, along with anticipated revenues available for the Capital Highway Program and Routine Maintenance.



The table below summarizes the total (state and federal) forecasted transportation revenues by mode available in the year 2030.

- Federal highway revenues are expected to increase at an annual rate of 4.9 percent.
- State highway revenues (excluding bond revenues) are expected to increase at an annual rate of 4.0 percent.
- Federal transit and intercity/freight revenues are expected to increase at an annual rate of 4.3 percent.
- State transit and intercity/freight revenues are expected to increase at an annual rate of 3.0 percent.

	<i>FY 2006 – FY 2030 Estimate</i>		
	<i>Federal</i>	<i>State</i>	<i>Total</i>
Highway Program	\$21,726.5	\$21,179.8	\$42,906.3
Transit Program	\$696.0	\$4,716.9	\$5,412.9
Intercity Passenger and Freight Program*	**\$41.1	\$517.4	\$558.5
Aeronautics Program	\$1,791.0	\$219.5	\$2,010.5
<i>Total MDOT Transportation Revenue Forecast</i>	<i>\$24,254.6</i>	<i>\$26,633.6</i>	<i>\$50,888.2</i>

* Includes Intercity Bus, Passenger Rail, Rail Freight and Marine/Port programs.

** Forecast dedicated entirely to the Intercity Bus program. No forecasted revenue for the Passenger Rail, Rail Freight or Marine Port programs.

Long Range Transportation Revenue Issues:

Federal and state revenues are subject to unforeseen changes in the economy, unforeseen changes in policy direction and changes in technology. These unknowns are difficult to quantify but certainly could affect the forecasts within this report. Some of the long-range transportation issues noted in this report include:

- The Federal Highway Trust Fund will be in deficit by the year 2010 unless changes are made in the federal funding structure.
- Changes in automotive fuel efficiency (and subsequent fuel tax revenues) may force changes in how transportation revenues need to be collected.
- The erosion of purchasing power for transportation needs due to the lack of tax indexing at the federal and state level.

Chapter 1. Introduction

The purpose of this report is to give an overview of how transportation is funded in the state of Michigan and provide an estimate of the funds available to the Michigan Department of Transportation (MDOT) to support its transportation system. The forecasting of those funds will set the stage for determining the adequacy of funding needed to meet the performance targets and future transportation system “vision” outlined in Michigan’s 2030 Transportation Plan.

In Fiscal Year (FY) 2005 (October 1, 2004 to September 30, 2005), the MDOT budget was nearly \$3.5 billion. The major sources of the transportation funds are user taxes, registration fees, and federal aid. MDOT does not typically receive appropriations from the state of Michigan’s General Fund.

The following pie chart, **Figure 1**, shows the FY 2005 MDOT budget appropriations.

Figure 1: FY 2005 Budget Appropriations (millions dollars)

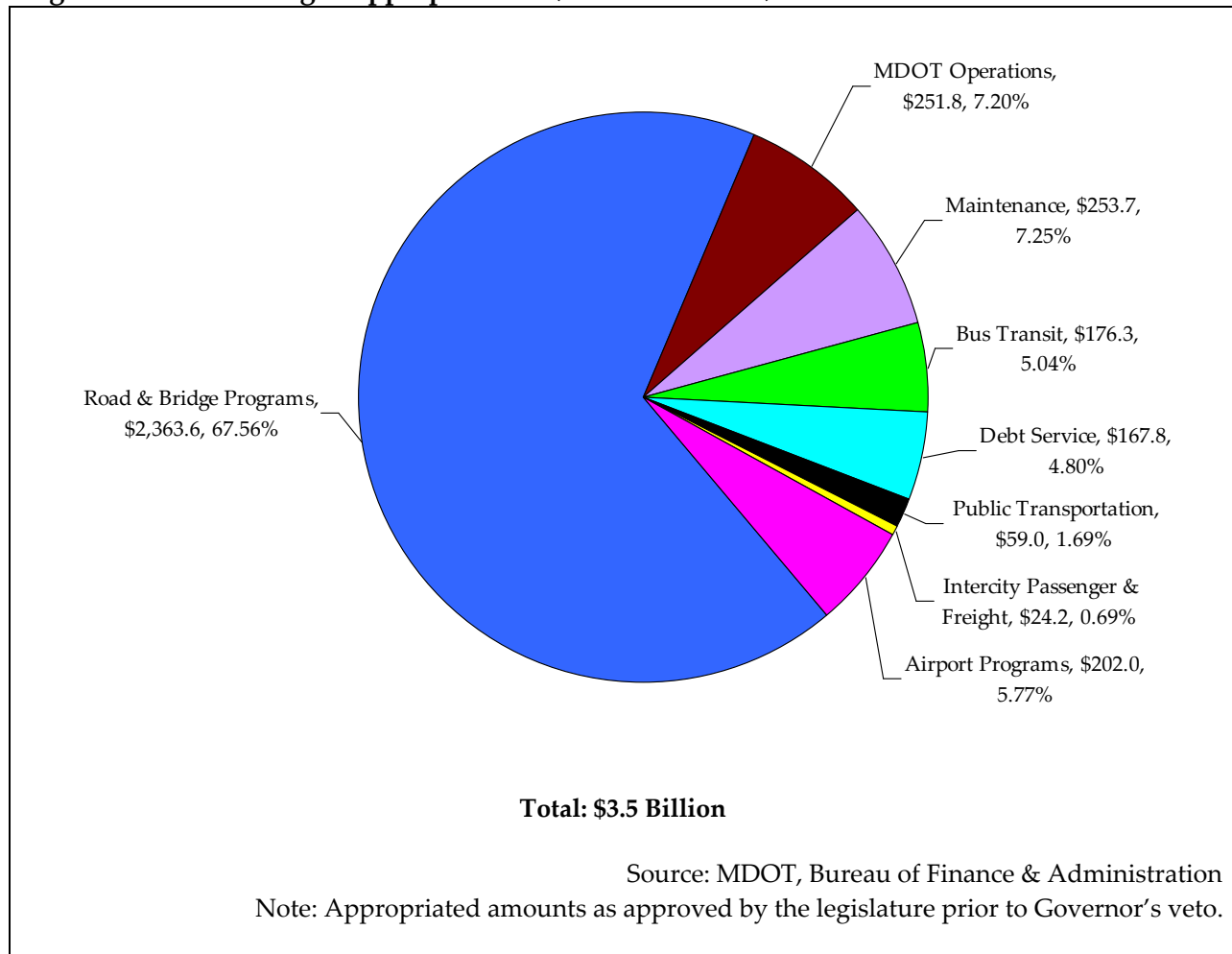
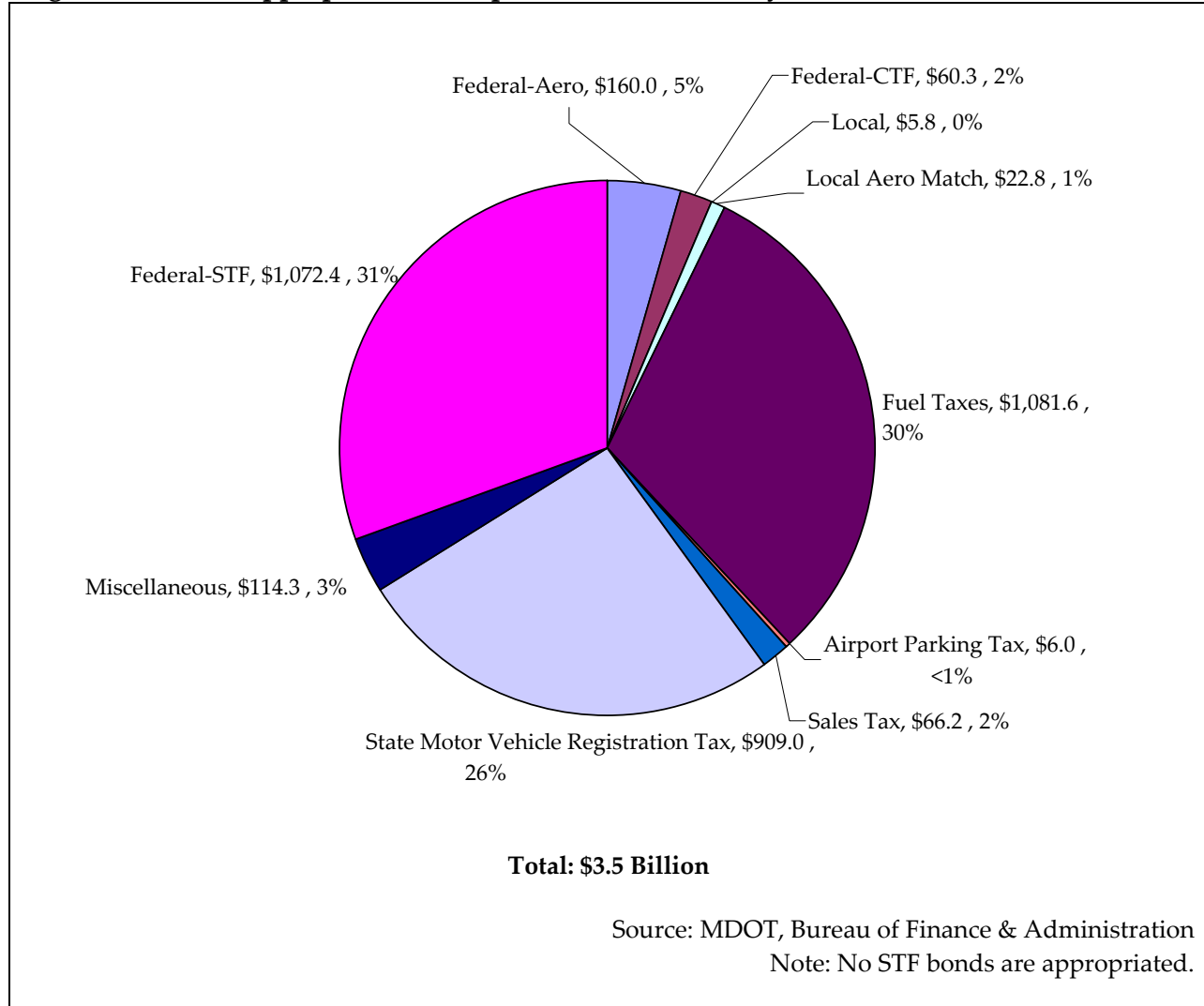


Figure 2 shows how transportation revenues are derived. Note that three sources represent the majority of MDOT's transportation revenues: state fuel taxes and vehicle registration fees, and federal aid for highways (primarily from the federal fuel tax).

Figure 2: FY 2005 Appropriated Transportation Revenues, by Source (millions dollars)



Chapter 2. Transportation Funding in Michigan

This chapter discusses federal and state laws that govern the collection and distribution of transportation revenues in the state of Michigan. Revenues for the local system are also discussed, however the focus of this report is the MDOT system, i.e., the transportation infrastructure that MDOT owns, operates and maintains, and the portion of the revenues that MDOT receives and programs, including federal funds apportioned directly to MDOT and passed through to local agencies. Only the state and federal revenues that MDOT manages and distributes are forecasted in **Chapter 4**.

2.1 Federal Transportation Funding

Federal aid accounted for 38 percent of all MDOT revenues in FY 2005. Federal revenues support every mode of MDOT's transportation system from highways to transit, rail, marine and port, and aeronautics. In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) reauthorization was signed into law authorizing \$6.5 billion in apportioned funding for Michigan's transportation system for FY 2005 to FY 2009.

2.1.1 Federal Highway Transportation Funding Program

Federal aid for highways has been an ongoing program in the United States since the Federal-Aid Road Act of 1916. Subsequent legislation led to the creation of the Interstate System, which has contributed to the economic vitality of the nation. Current federal legislation focuses on safety, improving traffic flow, and maintaining the system that is already in place.

Federal funding for improvements to the surface transportation system is largely derived from excise taxes levied on the sale of motor fuel, large trucks and trailers, truck tires, and the use of heavy vehicles. Revenue from these federal excise taxes is collected in the Highway Trust Fund (HTF). The largest sources of HTF revenue come from the federal gasoline tax (levied at the rate of 18.4 cents per gallon) and the federal diesel tax (levied at the rate of 24.4 cents per gallon).

Funds collected in the HTF are distributed to federal programs and to the states by formulas established in the authorizing legislation. These formulas tend to favor some states at the expense of others. Historically, Michigan has fared poorly under these formulas and is recognized as a donor state. Donor states contribute funds to the HTF at a greater rate than which they receive distributions from it. Although donor states are needed to facilitate a nationwide transportation system, Michigan has fought hard to improve the rate of return that it receives on its HTF contributions.

2.1.1.1 Federal Legislative Funding Concepts

There are several pieces of federal legislation that go into providing the funding available for highways. The first is the authorizing legislation. Historically, authorizing legislation has covered a multi-year period. The intent of authorizing legislation sets the upper limits for highway funding during this period and allows for the continued funding of the highway system. The authorization bill also distributes the funds to states using formulas and procedures.

Annually, Congress passes an appropriations bill that limits the obligations that can be made from the HTF. This limit is intended to maintain a balance in the HTF that is consistent with budget and economic policy.

2.1.1.2 SAFETEA-LU: the Current Authorizing Legislation

On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This reauthorization of the federal transportation program continues to provide flexible funding to states, but

emphasizes national priorities such as safety, equity, congestion relief, and protection of the environment.

SAFETEA-LU authorizes \$5.6 billion in apportioned funding for the state of Michigan. Michigan successfully increased its rate of return on the federal gas tax dollars sent to the Highway Trust Fund (HTF). Between 2005 and 2009, Michigan's rate of return will increase from 90.5 cents on the dollar to 92 cents on the dollar. These funding increases in SAFETEA-LU, while modest, will assist MDOT in serving the transportation needs of our citizens and strengthening Michigan's economy.

The transportation programs and services that will receive increased funding as a result of the bill are many of the core programs that MDOT provides for Michigan citizens. Funding will increase for several existing programs, such as interstate maintenance, the national highway system, safety programs, bridge programs, congestion mitigation, and environmental programs.

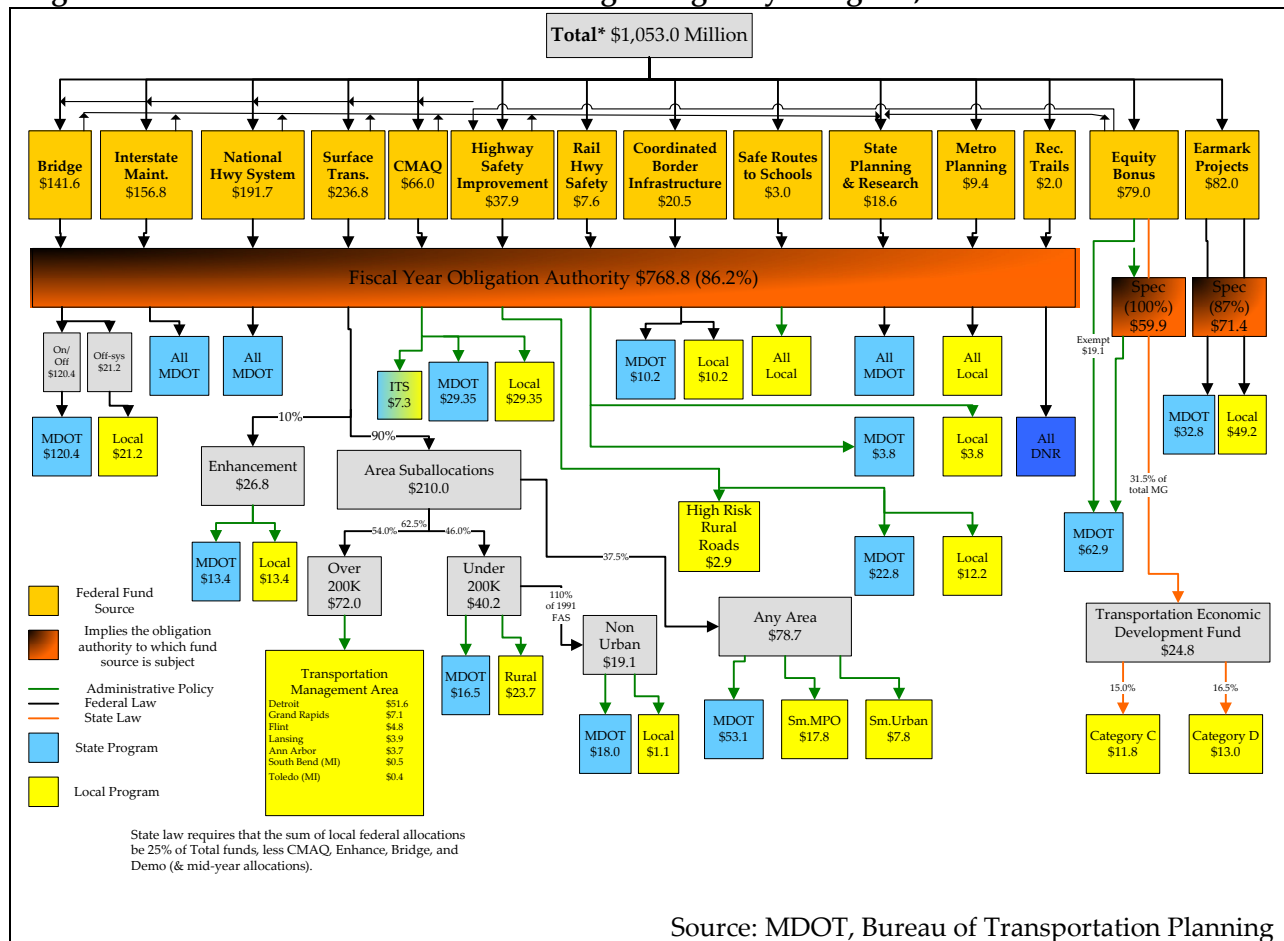
SAFETEA-LU also creates several new programs of importance to Michigan. A new border infrastructure program makes funding available to assist in our efforts to enhance the efficiency and security of international border crossings. An increased emphasis on highway safety, i.e., the creation of a new highway safety program, will help Michigan meet its goal of reducing traffic fatalities on all Michigan roadways to one per 100 million vehicle miles traveled – annually saving over 1,000 lives and thousands of serious injuries.

SAFETEA-LU increases both the dollar value and total number of congressionally-designated (or earmarked) highway and transit projects when compared with previous authorization periods. SAFETEA-LU includes 171 earmarked transportation projects in Michigan at a total value of \$643 million.

2.1.1.3 Michigan Law Pertaining to Federal Aid Highways

Public Act 51 of 1951 has been amended several times and addresses the distribution of federal aid that comes to Michigan. The intent of Act 51 in regards to federal highway aid is to distribute approximately 25 percent of federal aid to local jurisdictions for their use on federal aid eligible roads. Michigan maintains this 25 percent distribution on an annual basis. In 2006, MDOT's share of federal apportionment totaled \$765.7 million and \$295.3 million went to local units of government. **Figure 3** provides an overview of the process of allocating federal funds to MDOT and the locals.

Figure 3: Federal Aid Distribution to Michigan Highways Program, FY 2006



2.1.2 Other Federal Surface Transportation Funding

2.1.2.1 Federal Transit Funding

Federal transit and intercity bus funding is provided under SAFETEA-LU, building on the foundation established by two previous surface transportation authorization laws, the Intermodal Surface Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21). SAFETEA-LU provides a record level of federal transit funding, \$52.6 billion over six years (2004-2009), an increase of 46 percent over the amount

in TEA-21. It provides guaranteed annual increases for all transit programs through the use of discretionary spending offsets and language similar to that included in TEA-21. The federal transit program is funded from both the general fund of the US Treasury and a trust fund account called the Mass Transit Account of the Highway Trust Fund. The Mass Transit Account is supported by a dedicated source of revenue – currently 2.86 percent of the 18.4 cents per gallon excise tax on gasoline. SAFETEA-LU continues the use of 18 percent federal general funds and 82 percent federal trust funds from the Mass Transit Account. The transit program structure remains largely the same, making some changes to existing programs and adding new ones.

Many of the provisions in SAFETEA-LU require additional Federal Transit Administration (FTA) guidance and rulemaking, and a corrections bill is likely which may result in policy changes, redirection of increased funding and additional earmarked projects.

SAFETEA-LU guarantees a minimum amount of transit funding for each formula program over the life of the legislation. Formula funds and discretionary programs are authorized through an annual appropriation bill. Depending on the federal program, SAFETEA-LU provides federal funds to both state DOTs and local transit providers. For example, the Urbanized Area Formula Program is distributed directly to the local transit providers and the Non-urbanized Area Formula Program is distributed to MDOT. Some funds are distributed by formula, others are earmarks designated by Congress, and still others are awarded based on a competitive grant process. **Table 1** illustrates the distribution of the federal funding in Michigan.

Table 1: FY 2005 Federal Transit Funding for Michigan Under SAFETEA-LU (in millions of dollars)

<i>Federal Section Number</i>	<i>Program Name</i>	<i>FY 2005 Amount to Michigan</i>	<i>FY 2005 Amount to MDOT</i>
General Operation and Infrastructure			
Section 5307	Urbanized Area Formula Program	\$67.9	\$0.0
Section 5309	Bus and Bus Related Facilities (Earmarks)	\$34.0	\$10.2
Section 5311	Non-urbanized Area Formula Program (excluding intercity bus)	\$8.0	\$8.0
Section 5311(b)(3)	Rural Transportation Assistance Program	\$0.1	\$0.1
Transportation Services for Targeted Populations			
Section 5310	Special Needs of Elderly Individuals and Individuals with Disabilities	\$3.1	\$3.1
Section 5316 *	Job Access and Reverse Commute (JARC) Program (Earmarks)	\$4.2	\$0.0
Planning			
Section 5304 **	Statewide Planning and Research Program	\$0.4	\$0.4
Section 5303	Metropolitan Planning	\$2.0	\$2.0
Total		\$119.7	\$23.8

Source: MDOT

* In FY 2005, these funds were appropriated under Section 3037 of TEA-21

** In FY 2005, these funds were appropriated under Section 5313(b) of TEA-21

2.1.2.2 Intercity Bus

Under SAFETEA-LU, intercity bus funding is available under one of the transit formula programs, specifically the Section 5311 Non-urbanized Area Formula funds. Section 5311f of both TEA-21 and SAFETEA-LU require 15 percent of Section 5311 appropriation be set aside to support intercity bus transportation unless the state certifies that the intercity service needs of the state are being met.

2.1.2.3 Passenger Rail

Federal funding for passenger rail activities has come from a variety of sources, including the Section 1010 program begun in ISTEA, discretionary FTA grants, enhancement grants, and earmarks in appropriations bills. This funding has been used for a variety of projects, including eliminating at-grade crossings, upgrading grade crossing warning devices, constructing or rehabilitating intermodal facilities, and making technological innovations. Total federal funding for the 20-year period from 1985 through 2004 totaled over \$41 million.

Some high-dollar projects have included:

- \$19 million for implementation of High Speed Positive Train Control;
- \$6.2 million for a permanent passenger station in Detroit;
- \$3.6 million for motorist and pedestrian safety efforts under Section 1010; and
- \$7.5 million for the Lansing to Detroit (now Ann Arbor to Detroit) Transit Study.

2.1.2.4 Earmarks

Michigan received two Section 5309 Capital Investment “New Starts” earmarks under SAFETEA-LU. The Federal Transit Administration’s (FTA) discretionary New Starts program is the federal government’s primary financial resource for supporting locally planned, implemented, and operated major transit capital investments. The New Starts program funds new guideway systems and extensions to existing fixed guideway systems in every area of the country. These projects include commuter rail, light rail, heavy rail, bus rapid transit, trolleys and ferries. Michigan received two New Start earmarks in SAFETEA-LU, a \$100 million earmark for design and construction of the Ann Arbor to Detroit Transit project and a \$14.4 million earmark for the Grand Rapids Fixed Guideway project. These two earmarks could result in new passenger rail service in the state, including commuter rail, light rail and/or bus rapid transit. Award of the federal funding is contingent upon each project qualifying under the “New Starts” criteria.

2.1.2.5 Rail Freight

While there were no specific programs in TEA-21 directed toward rail freight, individual earmarks have become increasingly common. Canadian National Railway (CN), Canadian Pacific (CP), and the Genesee County Road Commission successfully lobbied for projects in Michigan totaling \$2.3 million in TEA-21. This money funded international border crossing improvements, improvements at highway-railroad at-grade crossings, and a feasibility study for a grade separation.

As with its predecessors, SAFETEA-LU includes no specific programs directed at rail freight but does include a number of earmarks. It should be noted that these earmarks are all improving existing at-grade crossings in order to ease roadway congestion and safety. There are clearly inherent operational benefits for the rail industry, but the primary impact of the projects is on the highway system. Michigan rail-related earmarks in SAFETEA-LU include:

- \$9.56 million for a grade separation at Allen Road in Woodhaven;
- \$0.96 million for a project to reduce blockages at Cogshall Road in Holly;
- \$1.60 million for a grade separation at Fort Street (M-85) in Trenton;
- \$0.40 million to continue work toward a highway realignment and grade separation project near Port Huron;
- \$16.84 million for two grade separations on Farm Lane near the Michigan State University campus in East Lansing and related work on nearby Trowbridge Road;
- \$5.12 million for highway railway crossing improvements in Monroe; and
- \$1.00 million for the Washington Avenue streetscape and rail relocation in Saginaw.

2.1.2.6 Marine and Port Funding

Soo Locks

Congress authorized construction of a new large lock at Sault Ste. Marie in the Water Resources Development Act of 1986. The new lock will replace two functionally obsolete locks and be capable of accommodating the large vessels that currently account for approximately two-thirds of the US Great Lakes' fleet capacity. Federal law requires cost sharing to be paid by the eight Great Lakes states for construction of the new lock. Based upon the US Army Corps of Engineers' estimated project cost of \$225 million and the origins and destinations of traffic using the Soo Locks, Michigan's share of those costs is \$14.1 million, payable over the project life of 50 years. A dedicated reserve fund was established in 2001 and as of September 30, 2005 holds \$5.1 million.

Ferry Boats and Ferry Terminals

The Ferry Boat Discretionary (FBD) Program, initially created in ISTEA, is a Federal Highway Administration program, which provides a special funding category for the construction of ferry boats and ferry terminal facilities. TEA-21 reauthorized the FBD funding category through FY 2003. SAFETEA-LU provides \$38 million for this program nationwide in FY 2005, and an increasing amount in each fiscal year, 2006 through 2009.

Under the provisions of SAFETEA-LU, any funds authorized for the program for the fiscal year, which are not available for obligation, due to the imposition of an obligation limitation, are not allocated for the FBD program, but are redistributed to the states by formula as STP funds. Twenty million dollars from each of FYs 2005 through 2009 will be set aside for marine highway systems that are part of the NHS for use by the states of Alaska (\$10 million), New Jersey (\$5 million), and Washington (\$5 million). The remaining funds are available for funding projects.

Table 2: FHWA Ferry Boat Discretionary Program Funding-Nationwide (in millions)

<i>Fiscal Year</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
Competitive	\$18.0	\$35.0	\$40.0	\$45.0	\$47.0
NHS Set-aside	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0

Source: MDOT

Between 1994 and 2000, Michigan was awarded a total of nearly \$6.7 million for three ferry boats and one dock modification project via this program. In recent years the program has become primarily an earmarked program, so “competitive” awards have not been granted. Accordingly, FHWA solicits applications for only those projects, which receive an earmark. Should an agency be granted an earmark for an eligible project, application by MDOT would be required to access the funds. No awards were made to Michigan in FY 2005.

2.1.3 Federal Aviation Funding

Currently federal funds for airport capital improvement and development come from the Federal Aviation Administration (FAA) through enabling legislation (Vision 100, Century of Aviation Reauthorization Act) and appropriations legislation (Omnibus bill). The revenue is derived from user fees (Airways and Airports Trust Fund) and general funds. The Airways and Airports Airway Trust Fund, created by the Airport and Airway Revenue Act of 1970, provides funding for the federal commitment to the nation’s aviation system through several aviation-related excise taxes. Funding currently comes from tax collections related to passenger tickets, passenger flight segments, international arrivals/departures, cargo waybills, aviation fuels, and frequent flyer mile awards through affinity programs from airline and non-airline sources such as credit card issuers. Current Fiscal 2006 budget level for the Airport Improvement Program (AIP) nationwide is \$3.294 billion. For FY 2006 Michigan is anticipating up to \$120 million in federal funds through the AIP.

Besides AIP funds there are funds from FAA’s Facilities and Equipment Program (F&E), which can fund navigational aids (navaids) such as precision approach path indicator lights (PAPIs), runway end identifier lights (REILs), instrument landing systems (ILS), and air traffic control (ATC) towers. Award and implementation of F&E funds are handled directly by FAA, with minimal MDOT involvement.

In addition, the US Department of Transportation (US DOT), through the Office of the Secretary, provides funding for two programs intended to retain or improve available commercial air services to small communities. The oldest of these programs was initiated over two decades ago when Congress deregulated the airline industry, phasing out the federal government’s control over domestic fares and commercial service routes, allowing market forces to determine the price, quantity, and quality of service. Concerned that air service to some small communities would suffer in a deregulated environment, the Congress established the Essential Air Service (EAS) program as part of the Airline Deregulation Act of 1978.

The act guaranteed that communities served by air carriers before deregulation would continue to receive a certain level of scheduled air service. In general, the act guaranteed continued

service by authorizing the Civil Aeronautics Board, whose duties were later transferred to the US DOT, to require carriers to continue providing basic levels of service at these communities.

If an air carrier could not continue that service without incurring a loss, US DOT could then use EAS funds to award a subsidy to that carrier (or to another carrier willing to provide service). These federal subsidies are to cover the difference between a carrier's projected revenues and expenses and provide a minimum amount of profit.

On April 5, 2000, the Aviation Investment and Reform Act for the 21st Century (AIR-21) became public law, which, among other things, established a new pilot program designed to help smaller communities to enhance their air service. Designated the Small Community Air Service Development Program (SCASD), it is structured to award up to 40 grants each year, though no more than four of those may be within a single state. Program-wide funding levels have varied between \$10 million and \$20 million annually, and are administered by the US DOT (for fiscal 2006, the SCASC is funded at \$10 million).

The core objective of the program is to secure service enhancements that will be responsive to a community's commercial air transportation needs and whose benefits can be expected to continue after the initial expenditures.

Michigan communities have benefited under both the US DOT's EAS and SCASD Programs with the retention and improvement of commercial air services.

2.2 State Transportation Funding

State revenues accounted for 62 percent of all MDOT funding in FY 2005. Most state-generated transportation revenue is derived from motor fuel taxes and vehicle registration taxes as well as aviation taxes and fees. The Michigan Transportation Fund (MTF) is the collection and distribution fund for highway and transit transportation revenues and the State Aeronautics Fund (SAF) is the collection and distribution fund for aviation revenues.

2.2.1 Michigan Transportation Fund (MTF)

Established by Public Act (PA) 51 of 1951, the MTF is the primary means of distributing state transportation revenue. The two main sources of MTF funding are state motor fuel taxes and state motor vehicle registration taxes. These sources of revenue provided approximately \$1.93 billion in FY 2005 to the MTF. Other sources (special permit fees, interest, and miscellaneous funds) generated \$44 million in FY 2005. The total revenue to the MTF in FY 2005 was \$1.98 billion.

The state fuel and motor vehicle registration taxes are "state restricted" funds dedicated to funding transportation in Michigan. The Michigan transportation system receives no general fund/general purpose funds from the state.

Motor fuel and motor vehicle registration taxes are user fees imposed to pay for highways, bridges, and public transportation throughout the state. These taxes are used to maintain the existing transportation infrastructure, construction of new roads and bridges and public

transportation programs. These taxes reflect the amount of use of Michigan's transportation systems.

2.2.1.1 State Fuel Taxes

Michigan's gasoline tax is currently 19 cents per gallon. This tax is fixed per gallon of gasoline sold and is independent of the price of gasoline. In FY 2005, the state gasoline tax revenue was approximately \$922.4 million, with a \$48.5 million yield per penny taxed. The state of Michigan diesel tax is currently 15 cents per gallon. This tax is also a fixed per gallon tax and independent of the price of diesel fuel. In FY 2005, the diesel tax revenue was approximately \$146.3 million, with a \$9.7 million yield per penny taxed.

Michigan also levies a six percent sales tax on the pump price of gasoline and diesel fuel. The majority of this tax collection goes to the State School Aid Fund and local government revenue sharing. A total of up to 27.9 percent of 25 percent of the sales tax collected at four percent on all motor vehicle related sales (including sales tax on motor fuel) is distributed to the Comprehensive Transportation Fund (CTF). This is effectively 4.65 percent of all the motor vehicle related sales tax collected. For FYs 2004 and 2005, the percentage of motor vehicle related sales tax distributed to the CTF was reduced to an effective rate of four percent.

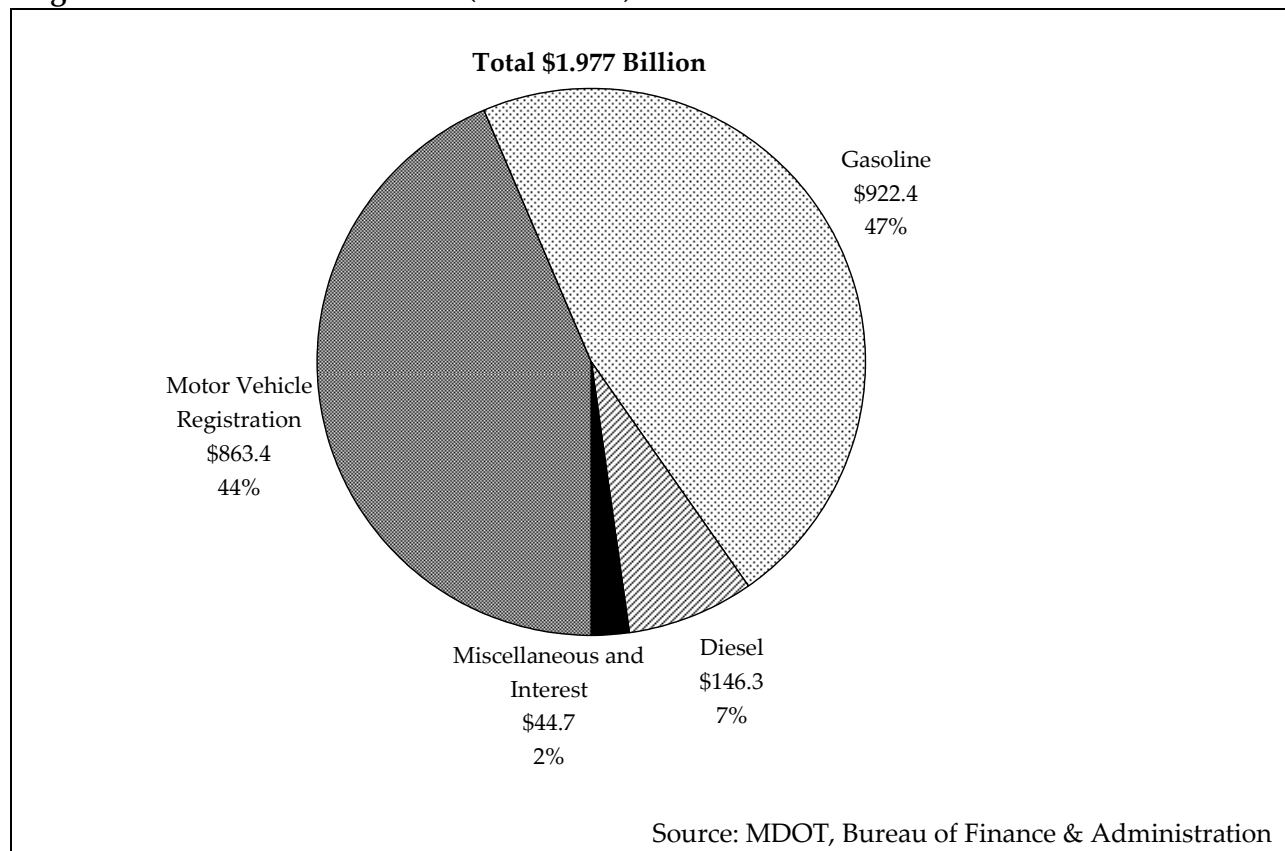
Michigan also levies taxes on liquefied petroleum gas (LPG) and aviation fuel. LPG is an alternative fuel used to propel motor vehicles and is currently a fixed tax at 15 cents per gallon. In FY 2005, LPG revenue was approximately \$460,000 with a \$30,000 yield per penny taxed. LPG tax revenue is restricted to the MTF. Aviation fuel is taxed at three cents per gallon, with interstate commercial carriers providing scheduled services eligible for a refund of one and a half cents per gallon. In FY 2005, aviation fuel tax revenues were approximately \$6.72 million. This revenue is deposited to the State Aeronautics Fund (SAF) and may only be used for aviation purposes.

2.2.1.2 State Motor Vehicle Tax

The state of Michigan also levies a motor vehicle tax on all vehicles registered for road use in Michigan. In FY 2005, motor vehicle registration taxes generated \$863.4 million with all revenue distributed to the MTF. Michigan's passenger and light duty truck registration tax is a value tax that is tied to the base price of the vehicle. In the passenger vehicle's first year of registration, the tax is 0.5 percent of the base price of the vehicle. The vehicle's second, third, and fourth year of registration tax is equal to 90 percent of the previous year's tax. After the fourth year, the registration tax remains constant. All other vehicles (including passenger vehicles from model year 1983 and earlier and heavy commercial trucks) are taxed based on vehicle weight. Transportation revenue is also collected from special permits and miscellaneous sources. These sources generated \$37.6 million in FY 2005.

Figure 4 depicts 2005 MTF transportation revenue by fund source.

Figure 4: FY 2005 MTF Revenues (in millions)

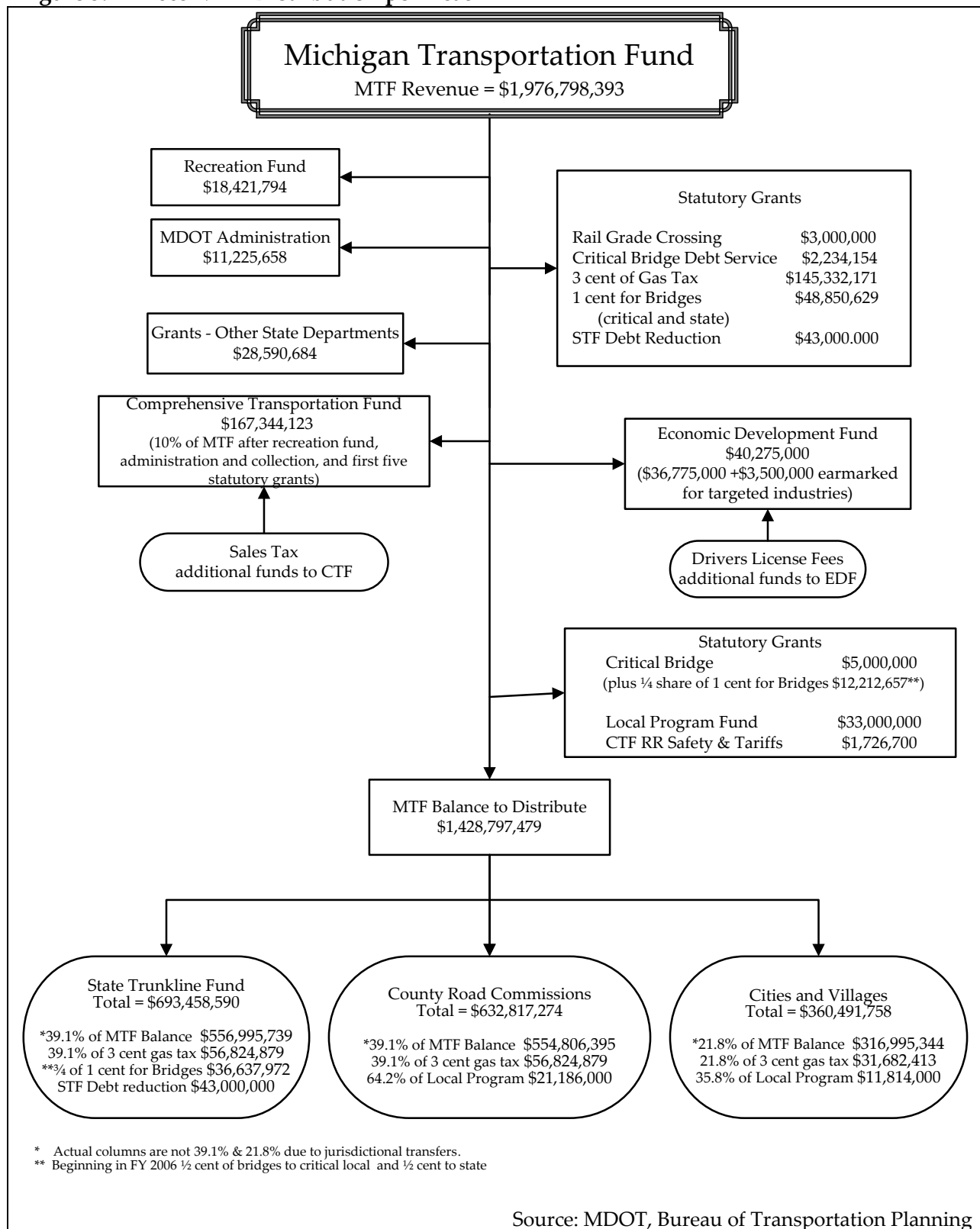


2.2.1.3 Distribution from the MTF

Act 51 directs the distribution of MTF funds to other state transportation funds to special program accounts and local units of government. The distribution formulas allocate restricted transportation revenue between highway programs and public transit programs. Act 51 also allocates highway funds between MDOT and local road agencies (see **Figure 5**).

Before transportation revenue is deposited into the MTF, approximately \$100 million is directed to other funds in state government primarily to compensate for the cost of collecting the transportation taxes. Once the transportation revenue is deposited within the MTF, various statutory deductions are distributed from the fund. The majority of these revenue deductions go to the Recreation Fund, Local Program, debt service, critical/state bridge programs, grants to other departments for transportation-related functions, and the Transportation Economic Development Fund. The Comprehensive Transportation Fund (CTF) receives 10 percent of the MTF, but only after certain statutory deductions are made such that the CTF's effective share of the MTF is a little over eight percent. After statutory deductions are made off the top of the MTF, including the CTF, the remainder of the MTF is distributed to the State Trunkline Fund, the 83 county road commissions, and more than 500 incorporated cities and villages. Act 51 also provides internal formulas, which direct how transportation revenues are spent.

Figure 5: FY 2005 MTF Distribution per Act 51



2.2.2 State Trunkline Fund (STF)

The State Trunkline Fund (STF) was established by Act 51 for construction and maintenance of state trunkline roads and bridges and for administration of the MDOT's road and bridge programs. The STF budget is subject to annual legislative review and appropriation.

The main financing sources of the STF are federal aid and transfers from the MTF. The STF receives 39.1 percent of the remainder of the MTF after several appropriations are made directly to specific programs and jurisdictions. Other sources of revenue include permit fees, interest earnings, sale of capital assets, grants and transfers, local participation, and other miscellaneous revenues. Annual appropriation acts have allowed for unencumbered STF funds at fiscal year ending to lapse into the STF balance, and be carried forward and appropriated for state trunkline road and bridge projects in the next year. MDOT also issues bonds, backed by STF, to finance preservation and construction of the state trunkline system. Each bond issue is separately accounted for, and proceeds are accounted for in the STF Bond Proceeds Fund.

STF expenditures and uses include capital outlay, routine maintenance, debt service, administration, grants and transfers, torts, and miscellaneous uses. The highest priority use, as established by Act 51, is debt service. MDOT administrative expenditures are limited to 10 percent of the funds received. After certain exclusions, 90 percent of STF funds are to be expended for preservation of the state trunkline system.

2.2.3 MTF Distribution to Counties

The local share of MTF funds for construction and maintenance of roads controlled by counties is distributed to the state's 83 county road commissions. The County Primary and County Local road systems are designated by County Road Commission board members, subject to approval by the Michigan State Transportation Commission. County Primary roads are selected according to their importance to the county, and all other county roads are part of the County Local road system. Also, Act 51 authorizes designation of a Seasonal County road system, which is only open to public travel for six months per year.

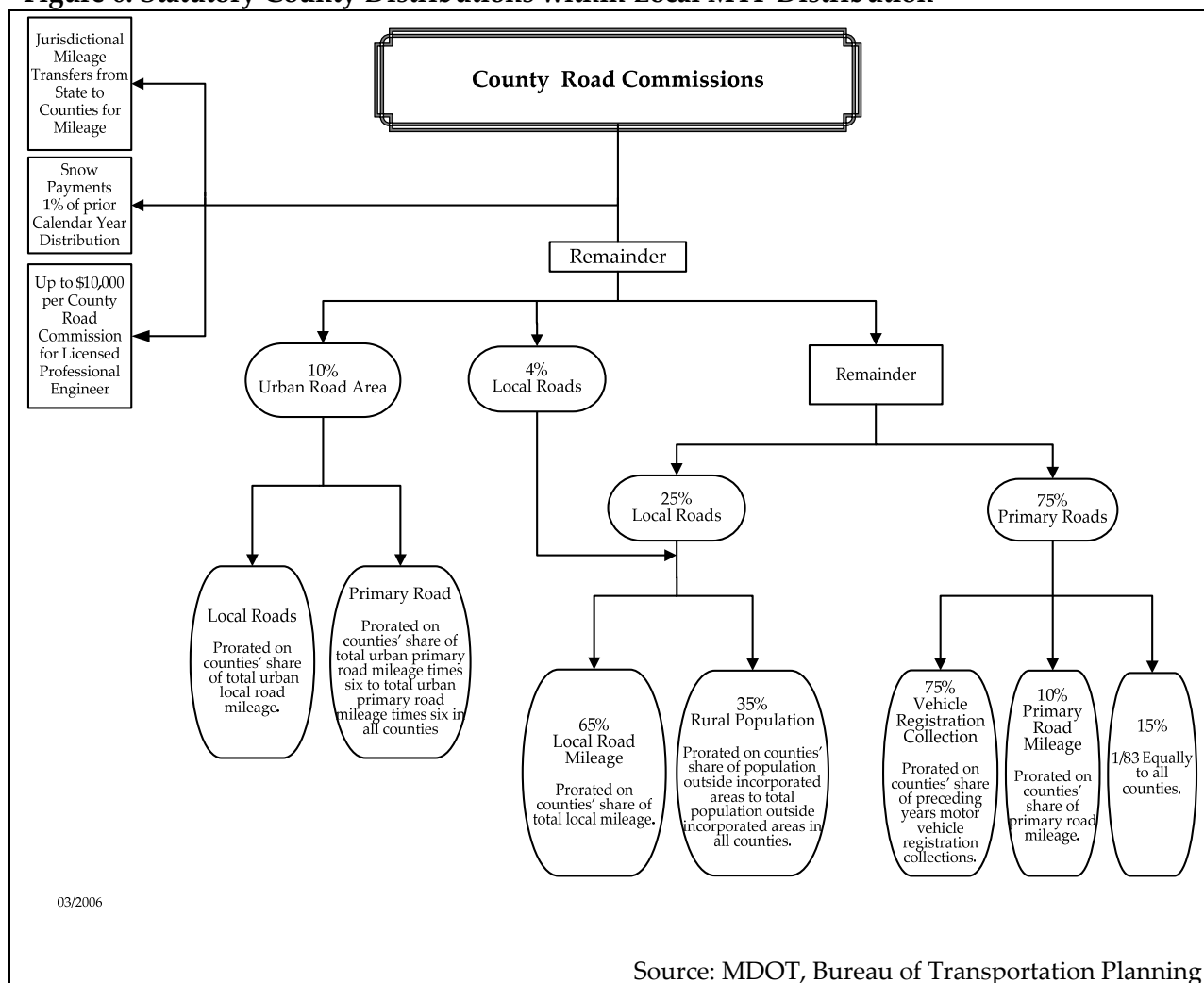
Act 51 allows funds to be transferred from Primary to Local systems, or vice versa. Up to 30 percent can be transferred from Primary to Local roads, while 15 percent can be transferred from Local to Primary roads. In an emergency, or with the approval of MDOT, an additional 15 percent can be transferred from Local to Primary roads. Road mileage may also be transferred between jurisdictional entities. As long as certain conditions are met, a county may transfer a road to the state, or the state may transfer a road to a county. Jurisdictions receiving mileage get a distribution of funds for each mile transferred. The amount depends on the average "revenue worth" per mile of County Primary and Local roads in the previous year.

County road commissions receive 39.1 percent of the remainder of the MTF after distributions to statutory and administrative grants. Act 51 sets aside a percentage of the county allocated funds to be used for snow removal in qualifying counties. Ten percent of the remainder is distributed, according to specific formula, to counties having urban mileage. Four percent is distributed to all counties according to population and Local road mileage for use on Local roads. Of the remainder, 75 percent is then distributed for use on County Primary roads,

according to each county's primary mileage and vehicle registrations, with 15 percent distributed equally to all counties. The other 25 percent of the remainder is distributed for use on County Local roads, based on road mileage and population.

There are several restrictions placed on the use of MTF monies. No more than five percent of county's MTF share can be used for roadside parks. County local funds used for bridge construction on County Local roads cannot exceed 75 percent of the cost of bridge construction, and must be matched by money from non-MTF sources. At least 90 percent of funds remaining after payments for debt service, administration, and capital outlay projects for equipment and buildings must be for maintenance. Maintenance, as defined by Act 51, includes reconstruction, resurfacing, restoration, rehabilitation, snow plowing, patching, and marking.

Figure 6: Statutory County Distributions within Local MTF Distribution



2.2.4 MTF Distribution to Cities and Villages

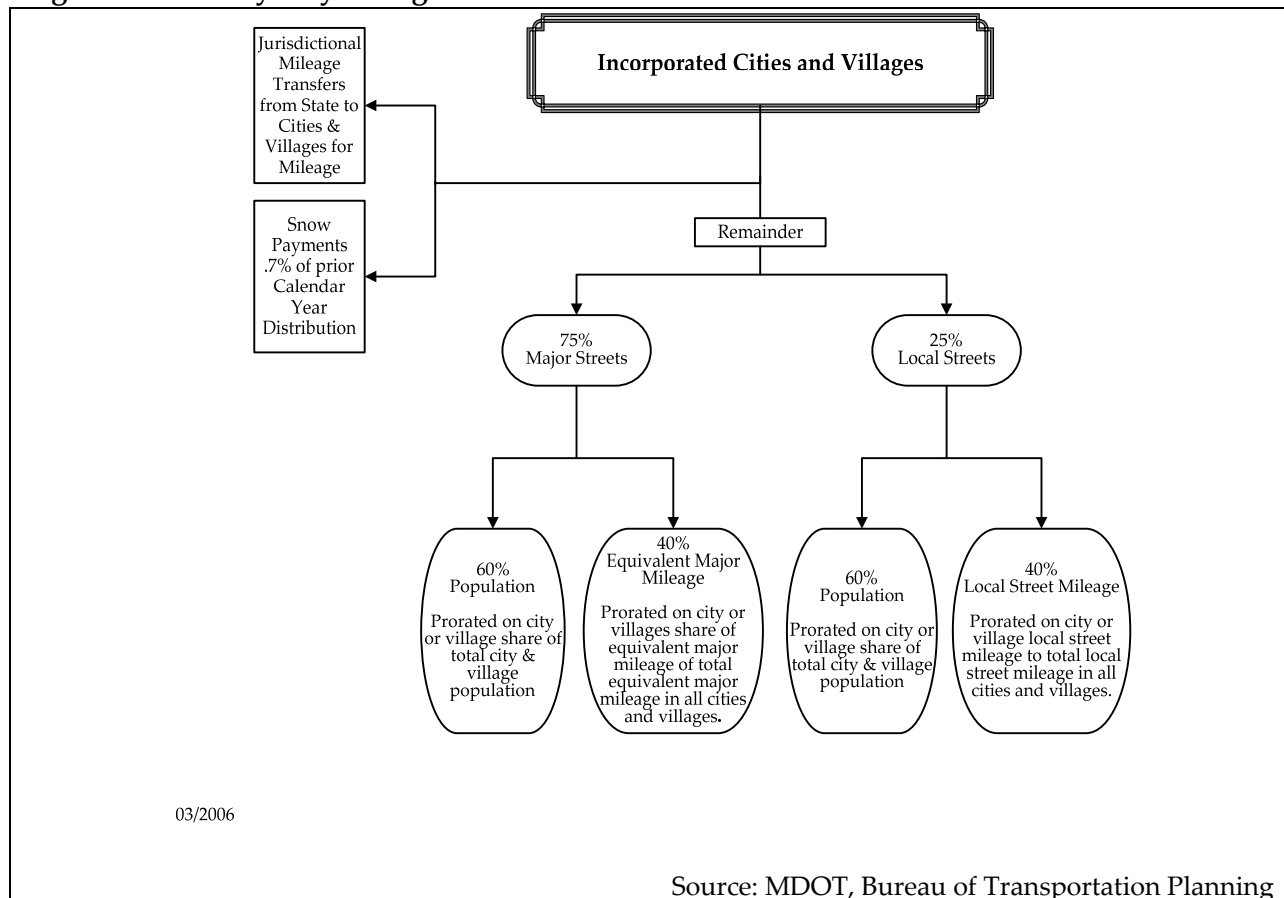
The local share of MTF funds for construction and maintenance of municipal streets is distributed to more than 500 incorporated cities and villages. The City Major Street and Local Street systems are designated by the governing body of each municipality, subject to the approval of the Michigan State Transportation Commission. City Major Streets are selected according to their importance to the municipality, and all other streets are city or village local streets. These street systems include no state trunkline highways or county roads.

Road mileage may be transferred between jurisdictional entities. As long as certain conditions are met, a city may transfer a road to the state, or the state may transfer a road to a city. Jurisdictions receiving mileage get a distribution of funds for each mile transferred. The amount depends on the average “revenue worth” per mile of County Primary and Local roads in the previous year.

Cities and villages receive 21.8 percent of the remainder of the MTF after program and jurisdictional distributions. Act 51 mandates that a portion of the city share of MTF funds be reserved for snow removal in cities with snowfall of more than 80 inches per year. Seventy-five percent of remaining funds are allocated for use on City Major Streets and debt service, using a formula based on road mileage and population. A maximum of five percent of the funds may be used for roadside parks. The remaining 25 percent is distributed according to population and mileage, to be used on the Local Street system or for payment of bonds for that purpose. No more than 10 percent of the total for City Major and Local Streets can be used for administration.

Cities and villages may use their funds on City Major or Local Streets, provided that the City Major Street system is the first priority. Unlike county roads, there is no specified requirement regarding the amount of funds expended for maintenance. MTF funds, which are allocated to a city or village and remain unused for a one-year period can be forfeited and redistributed among the other cities and villages. **Figure 7** provides the process of allocating state MTF funds to the cities and villages.

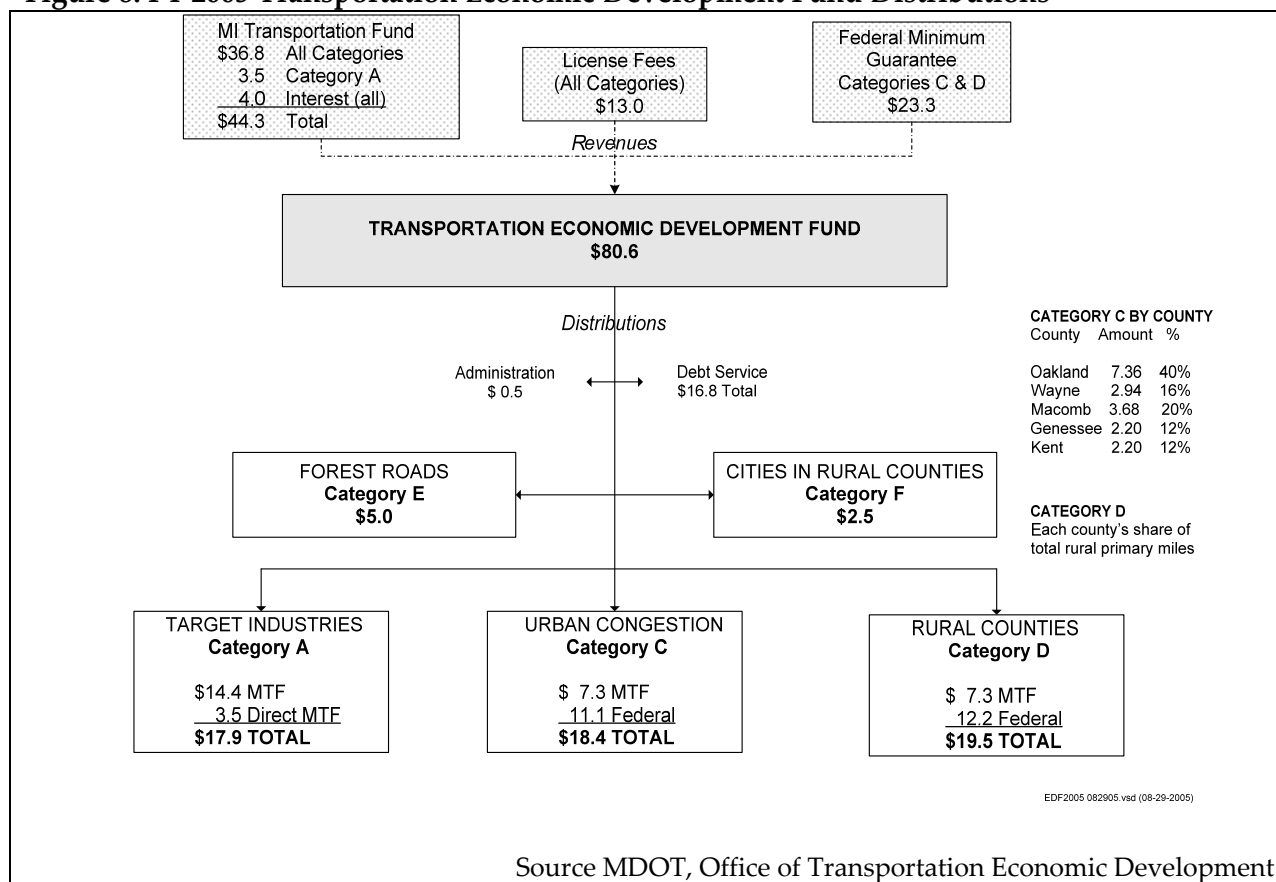
Figure 7: Statutory City/Village Distributions Within Local MTF Distribution



2.2.5 Transportation Economic Development Fund (TEDF)

The Transportation Economic Development Fund (TEDF) was created in 1987, through Public Act (PA) 231, to assist in financing road and street projects that support economic growth in Michigan. It funds road projects in support of job creation and retention. The TEDF is funded by a distribution from the MTF, a portion of the drivers' license fees and federal funds. In FY 2005, the MTF contributed \$43.2 million, drivers' license fees contributed \$13 million, and federal transportation revenue contributed \$24.9 million to the TEDF. It supports roads for target industries, congestion relief in urban counties, and all-season and forest roads. Current policy directs approximately 2.5 percent of the TEDF to state-maintained roads and the remaining 97.5 percent is used for road improvements to the local road systems.

Figure 8: FY 2005 Transportation Economic Development Fund Distributions



2.2.6 Comprehensive Transportation Fund (CTF)

The Comprehensive Transportation Fund (CTF) is created under Act 51, which also details use and distribution of the fund for various public transportation purposes.

2.2.6.1 CTF Revenue Sources

The CTF receives funds from several sources, the Michigan Transportation Fund (MTF) providing the greatest amount. Article IX, Section 9 of the Michigan Constitution requires that motor fuel taxes and vehicle license and registration fees, less collection expense, be used for transportation purposes. The Constitution also provides that not more than 10 percent of motor fuel taxes and vehicle registration fees may be used for public transportation programs. Act 51 provides that 10 percent of MTF revenues, after deductions for administration, debt service, and other statutory earmarks, be allocated to the CTF. The allocation to the CTF after the deductions is slightly over eight percent.

The other major revenue source for the CTF is motor vehicle related sales tax revenue. The Constitution provides that not more than 25 percent of the state general sales tax on motor vehicle related products shall be used for comprehensive transportation purposes. The

General Sales Tax Act, until FY 2004, stated that not less than 27.9 percent of 25 percent of the sales tax collected at 4 percent on motor vehicle related sales be given to the CTF. The percentage of sales tax given to the CTF was reduced from not less than 27.9 percent to not less than 24 percent for FYs 2004 and 2005. The FY 2006 operating bill for MDOT appropriated sales tax to the CTF at the equivalent of the reduced percentage and the General Sales Tax Act was amended to reflect this \$11.1 million reduction to the CTF through September 30, 2006. Enrolled House Bill 5796, which includes FY 2007 appropriations for MDOT, distributes sales tax to the CTF equivalent to the 27.9 percent. **Figure 9** shows the revenue source flow to the CTF and the distribution of those funds for FY 2005.

2.2.6.2 CTF Distributions

Act 51 requires the CTF to be distributed in the following priority:

1. Debt service obligations;
2. Cost of administration;
3. Local bus operating assistance; and,
4. Other programs.

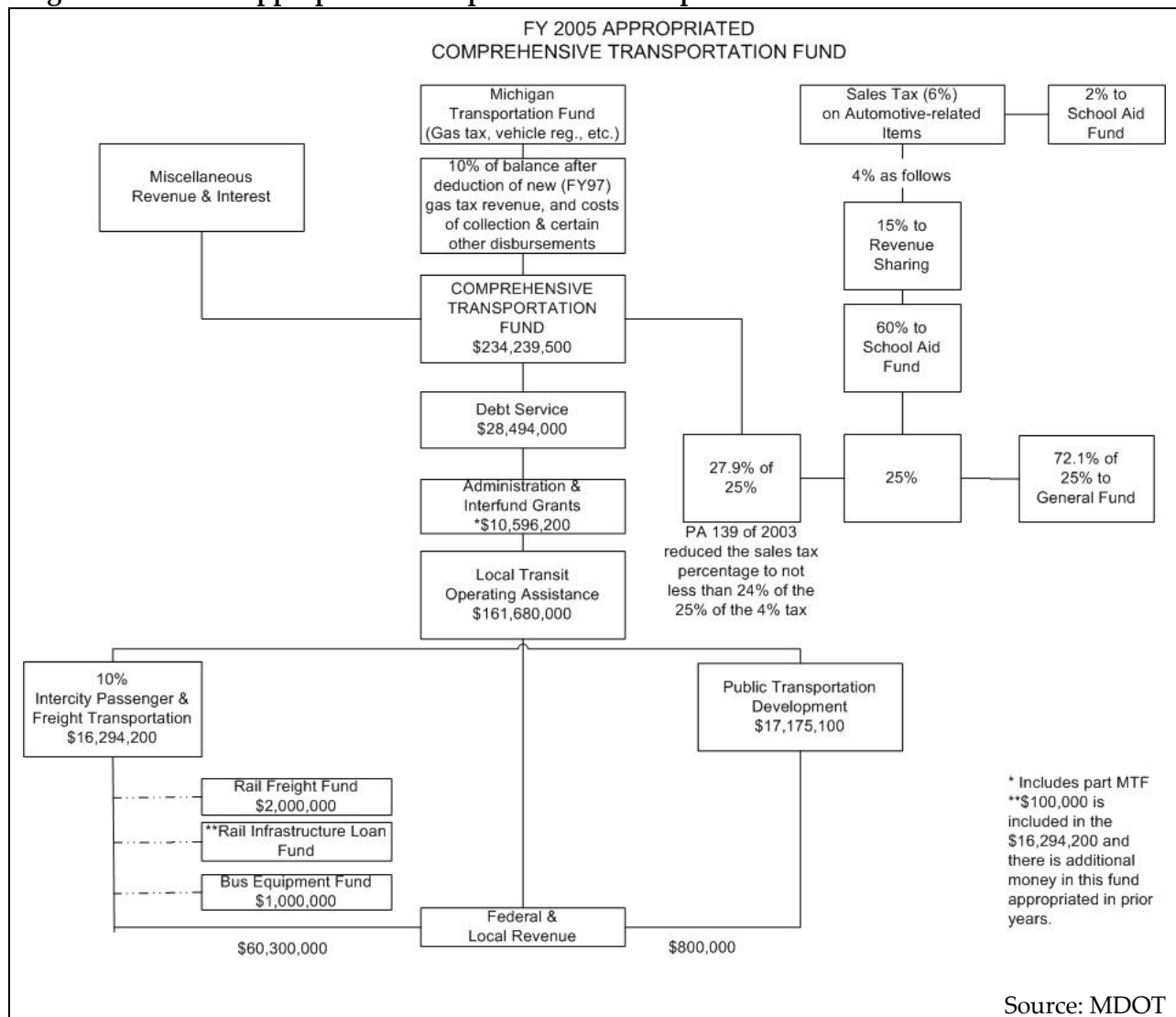
Also, Act 51 mandates a minimal level of funding for several CTF funded programs. The programs and their funding floors are:

- Local bus operating assistance at FY 1997 levels which equals \$121,332,410;
- Ten percent of the program funds for the Intercity Passenger and Freight programs;
- \$3,600,100 for specialized services;
- \$2,000,000 for municipal credit; and
- \$8,000,000 for bus capital/federal match.

Reductions in revenue to the CTF in recent years have led to several of the programs receiving only their funding floor, less than 10 percent of the program funds appropriated for the Intercity and Freight programs, and no state funding for some other programs. The reduction of revenue available for distribution has negatively impacted local bus systems (often part of a county or city government), the private sector such as the intercity bus carriers and railroads, and Michigan residents, businesses, and industry that rely on bus, rail, and marine modes of transportation.

As shown in **Figure 9**, the CTF supports three major program areas as defined in Act 51: “Local Transit Operating Assistance,” “Public Transportation Development,” and “Intercity Passenger and Freight.” Both the “Local Transit Operating Assistance” program and the “Public Transportation Development” programs benefit local transit services, including specialized service for the elderly and persons with disabilities, transportation to work services for low-income individuals and match for federal transit capital grants. It also supports van pool programs. The Intercity Passenger and Freight programs include rail freight, rail passenger, intercity bus, marine, and port. For the ease of discussion, many sections of this report talk about the CTF-supported programs in two main groups – Transit (which includes Local Transit Operating Assistance and Public Transportation Development) and Intercity Passenger and Freight.

Figure 9: FY 2005 Appropriated Comprehensive Transportation Fund



Due to the distribution requirements of Act 51, the type and mix of programs supported by the CTF appropriations and the funding level by programs have remained relatively stable over the last 10 or more years. The appropriation levels shown in **Figure 10** reflect recent history, with about 90 percent of the CTF program appropriations supporting transit (Local Bus Operating and Public Transportation Development) and the remaining 10 percent supporting Intercity Passenger and Freight.

2.2.7 State Aeronautics Fund

2.2.7.1 Revenue Sources

The State Aeronautics Fund (SAF), established in Public Act 327 of 1945, is the state source of funds for aviation projects at Michigan airports and administration of state aviation programs. The SAF is maintained as a separate and distinct account by the state treasurer and is appropriated annually by the Michigan Legislature to MDOT for aviation purposes only.

The aviation fuel excise tax generates the greatest share of revenue to the fund. At three cents per gallon, the tax has not been increased since its inception. A refund of 1.5 cents per gallon is available to interstate commercial carriers operating scheduled service upon request to the Michigan Department of Treasury.

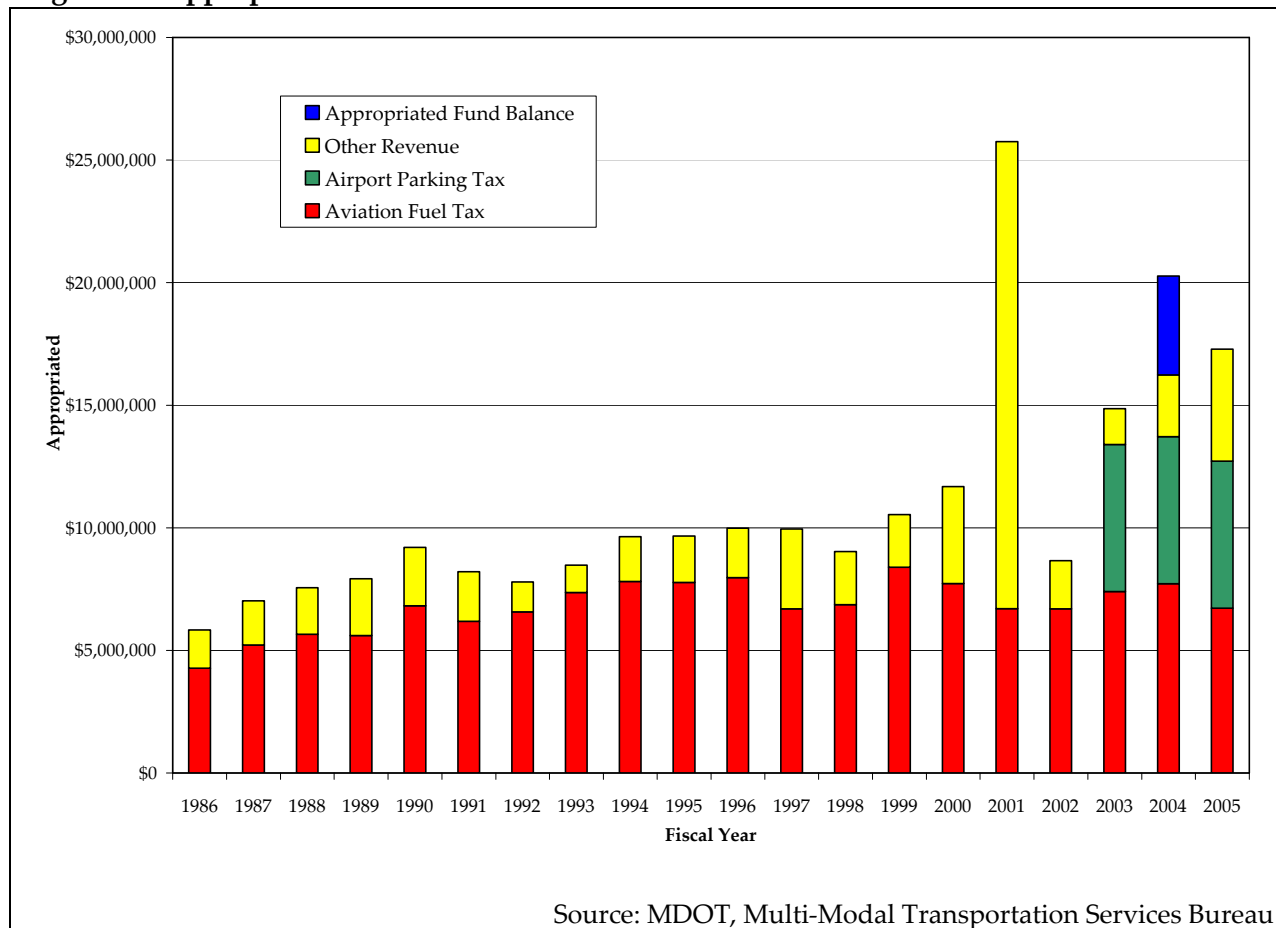
Other sources of revenue to the State Aeronautics Fund are:

- *Licenses and Permits:* These fees are paid on an annual basis, and include aircraft registration fees (\$.01/pound of maximum take-off weight), airport license fees (\$100 for an air carrier airport, \$50 for a general utility airport, and \$25 for a basic utility airport), and temporary field permits (\$50).
- *Miscellaneous Revenues:* This includes aircraft dealer fees (\$25/year), flight schools (\$25 for the first year, and \$10/year for annual renewal), sale of aeronautical charts and airport directories, hangar rent for state-owned facilities, and revenue from local navaid partners.
- *Interest Earnings:* Interest is earned on holdings in the State Aeronautics Fund and on airport loans (issued to local units of government).
- *Local Agencies:* These revenues primarily are deposits made by the local airport sponsor for their local share of the cost of an airport improvement project. Funds are used to provide local match funds for state and/or state and federal supported projects. All monies, federal, state and local, may be paid out by MDOT for project work.
- *PA 680 of 2002:* This act, enacted in December 2002, amended the Airport Parking Tax Act, changing the statutory distribution of the parking tax revenue. The first \$6 million levied of total fees collected at parking facilities within a five-mile radius of Detroit Metro Wayne County Airport are distributed to the State Aeronautics

Fund. The Aviation Security and Protection Program (ASAP) utilizes bond proceeds, which are paid for by the Airport Parking Tax Funds.

A 20-year history of all State Aeronautics Fund revenue (including federal funds), but excluding bond proceeds, is shown in **Figure 10**.

Figure 10: Appropriations to State Aeronautics Fund



In 2001, \$17 million of state General Funds were appropriated for improvements at Wayne County Airports.

In 2002, in response to a reduction in SAF revenue, the Airport Safety and Protection Program (ASAP) was developed. The funding for this program of capital improvements comes from combining federal funds, local funds, and up to \$60 million in state bonding (provided over five years). In 2006 the ASAP legislation was amended to allow improvements funded by only state and local funds.

ASAP funds are generated through a \$60 million bond authorization, which ends in December, 2007. Bonds will be repaid through the Airport Parking Tax Revenue. The legislation requires that these tax revenues be used exclusively for safety and security projects at state airports and debt service on the bonds sold.

The average annual funding for the State Aeronautics Fund, based on data from 1995 to 2004, is \$9,621,258. This is exclusive of Airport Parking Tax Funds (\$6,000,000/year), ASAP bond proceeds (approximately \$12 million/year), and federal funds (average \$90 million per year).

2.2.7.2 Capital Distributions

The federal/state/local program combines the federal funds from the Airport Improvement Program (AIP), section of Vision 100 with state and local funds. Only airports on the National Plan of Integrated Airport Systems (NPIAS) are eligible to receive these funds. Currently, there are 94 Michigan airports in the NPIAS. All airports on the NPIAS are eligible, if publicly owned, for \$150,000 in Non-Primary Entitlement funds. If an airport has commercial service and a minimum of 10,000 enplaned passengers annually, the minimum entitlement is \$1 million. With the passage of Vision 100, for all but medium and large hub airports, the federal funds can be used to pay for up to 95 percent of a project's eligible costs. It is the intent of the state to provide these funds at the 95 percent federal, 2.5 percent state, and 2.5 percent local share for primaries. For general aviation it varies, although currently it is 80 percent federal, 17.5 percent state, and 2.5 percent local.

Federal funds are provided in several classifications. These classifications include:

1. Primary Entitlements;
2. Non-Primary Entitlements;
3. Cargo Entitlements;
4. Noise Discretionary;
5. Ordinary Discretionary;
6. Military Airports Program; and,
7. State Apportionment.

Primary Entitlements are provided airports with commercial service that annually enplane 10,000 passengers or more. The minimum primary entitlement is currently \$1,000,000 but may be more as the entitlement is determined by formula and rule.

Non-Primary Entitlements (NPE) are \$150,000 or less, depending on the FAA Airport Capital Improvement Program listing. All Michigan airports eligible for NPE are receiving \$150,000.

Cargo Entitlements are provided to airports that move at least a percentage of the nation's air cargo. This entitlement has recently grown from three percent of AIP to 3.5 percent; only a few of Michigan's airports qualify for this entitlement. More information can be made available upon request.

Noise Discretionary funds are provided to an airport that has a current Federal Part 150 Noise program; currently only Detroit Metro and Oakland/Pontiac receive these funds,

although other airports have received them in the past. The total for Noise Discretionary Projects must equal 34 percent of all FAA discretionary funds nationally.

Ordinary Discretionary Funds allocations are determined by FAA Headquarters with input from the Great Lakes Region and Detroit Airports District Office of FAA. Generally, these are high priority projects, which include Runway Safety Area issues, Runway Incursions, Part 139 projects and runway pavement rehabilitation.

Military Airports Program provides discretionary funds to airports that have been converted from a military base during base realignment closings. Sawyer International, Chippewa County International, and Oscoda–Wurtsmith have received or are receiving funds under this program.

State Apportionment funds are provided to Michigan to be used as the state sees fit at Non-Primary Airports. These funds are used to supplement the Non-Primary Entitlement funds and are used for other priority projects. In 2006, legislation was enacted amending the Aviation Safety and Protection Program to allow projects funded by only state and local funding sources.

State/Local Funding Programs

The state/local program is a 50/50 program that is used to fund projects such as crack sealing and paint marking of runways. It is limited to \$150,000 in state funds. All public use airports are eligible for these funds, but funding has been restricted to the approximately 91 airports that have or are willing to obtain a state general utility license.

The state/local Small Airports program is a 90/10 program that is used to fund projects that do not have a high federal priority but are important to the airport and Michigan's Airport System Plan. There are not enough federal funds available for airport projects, or for airports ineligible for federal funds but eligible for state funds. The definition of a small airport is one that does not have 100-based aircraft and/or the airport has less than 10,000 annual commercial enplanements.

The Airport Loan Program is provided by MDOT for use by publicly owned airports for capital improvements. The limit is \$100,000 in outstanding loan balance at any time, the loan must be paid back in 10 years, and the local sponsor must provide at least a 10 percent match for the loan amount. The interest rate for the Loan Program is determined annually by the Michigan Department of Treasury based upon effective interest rates on municipal and state borrowings for comparable terms and is 4.2 percent for all loans issued in 2006. Airport sponsors must apply to the Department of Treasury for approval to incur the proposed indebtedness, and MDOT is notified if the sponsor's request is approved. MDOT then requests approval from the Michigan Aeronautics Commission (MAC) for issuance of the actual loan.

In May 2006, Public Act 135 of 2006 took effect amending the Airport Parking Tax Act. This amendment allows for an additional state/local safety and security program utilizing ASAP bond funds as well as airport parking tax funds. Under this program these state funds are

matched with local funds on a 90/10 basis at non-hub primary and large general aviation airports on a 95/5 basis at small general aviation airports.

2.2.7.3 Operating Distributions

Federal Essential Air Service

In 1978, Congress deregulated the airline industry, phasing out the federal government's control over domestic fares and commercial service routes, allowing market forces to determine the price, quantity, and quality of service. Concerned that air service to some small communities would suffer in a deregulated environment, the Congress established the Essential Air Service (EAS) program as part of the Airline Deregulation Act of 1978.

The act guaranteed that communities served by air carriers before deregulation would continue to receive a certain level of scheduled air service. In general, the act guaranteed continued service by authorizing the Civil Aeronautics Board, whose duties were later transferred to the US Department of Transportation (US DOT), to require carriers to continue providing basic levels service at these communities.

If an air carrier could not continue that service without incurring a loss, US DOT could then use EAS funds to award that carrier, or another carrier willing to provide service, a subsidy. These federal subsidies are to cover the difference between a carrier's projected revenues and expenses and provide a minimum amount of profit.

Currently, air service is subsidized under the EAS program at four Michigan airports: Delta County (Escanaba), Manistee-Blacker (Manistee), Gogebic County (Ironwood), and Ford Airport (Iron Mountain). While no immediate changes are foreseen, continued EAS service is contingent upon federal funds being appropriated to the US DOT for this program. The US DOT provides these funds directly to the air carrier; MDOT is not involved.

Federal Small Communities Air Service Development

On April 5, 2000, the Aviation Investment and Reform Act for the 21st Century (AIR-21) became public law, which, among other things, established a new pilot program designed to help smaller communities to enhance their air service. Designated the Small Community Air Service Development Program, it is structured to award up to 40 grants each year, though no more than four of those may be within a single state. Program wide funding levels have varied, between \$10 and \$20 million annually, and are administered by the US DOT. Funds are provided directly to the air carrier. State funding is not mandated; however, it may be provided to augment local match funds and improve the community's chance to obtain a federal grant award.

The core objective of the program is to secure enhancements that will be responsive to a community's commercial air transportation needs and whose benefits can be expected to continue after the initial expenditures.

To be eligible for a grant, the airport serving the community must be no larger than a Small Hub Airport (as defined by the FAA), have insufficient air carrier service, unreasonably

high air fares, geographic diversity, or unique circumstances that will demonstrate the need for the program.

Michigan communities have enjoyed a good deal of success in securing SCASD awards from the US DOT.

State Operating Funds

The annual operating appropriation for MDOT's aviation program, as opposed to the capital outlay appropriation, is funded entirely from the State Aeronautics Fund (SAF). In 2005, the appropriation was \$12,126,600. Included are salary, wage, and travel costs for 56 classified positions—employees who administer state-funded aviation programs as well as the federal programs. Other operational expenses include MDOT's Lansing-based aviation facility and equipment maintenance, All-Weather Airport Access Program costs, and the Air Service Program, which provides funding to small airports with commercial air service to help maintain and attract air service.

Other administrative programs, such as aircraft registration, airport manager licensing, publication of the annual Michigan Airport Directory and Aeronautical Chart also are carried out via the operations of MDOT, supported by appropriations from the SAF. In addition, development and implementation of airport manager and pilot education and safety programs, and MAC policies and programs are undertaken with support of the SAF. Also included in the annual appropriation are funds for debt service on bonds, inter-department and inter-fund grants.

2.2.8 Michigan Department of Transportation Bonding

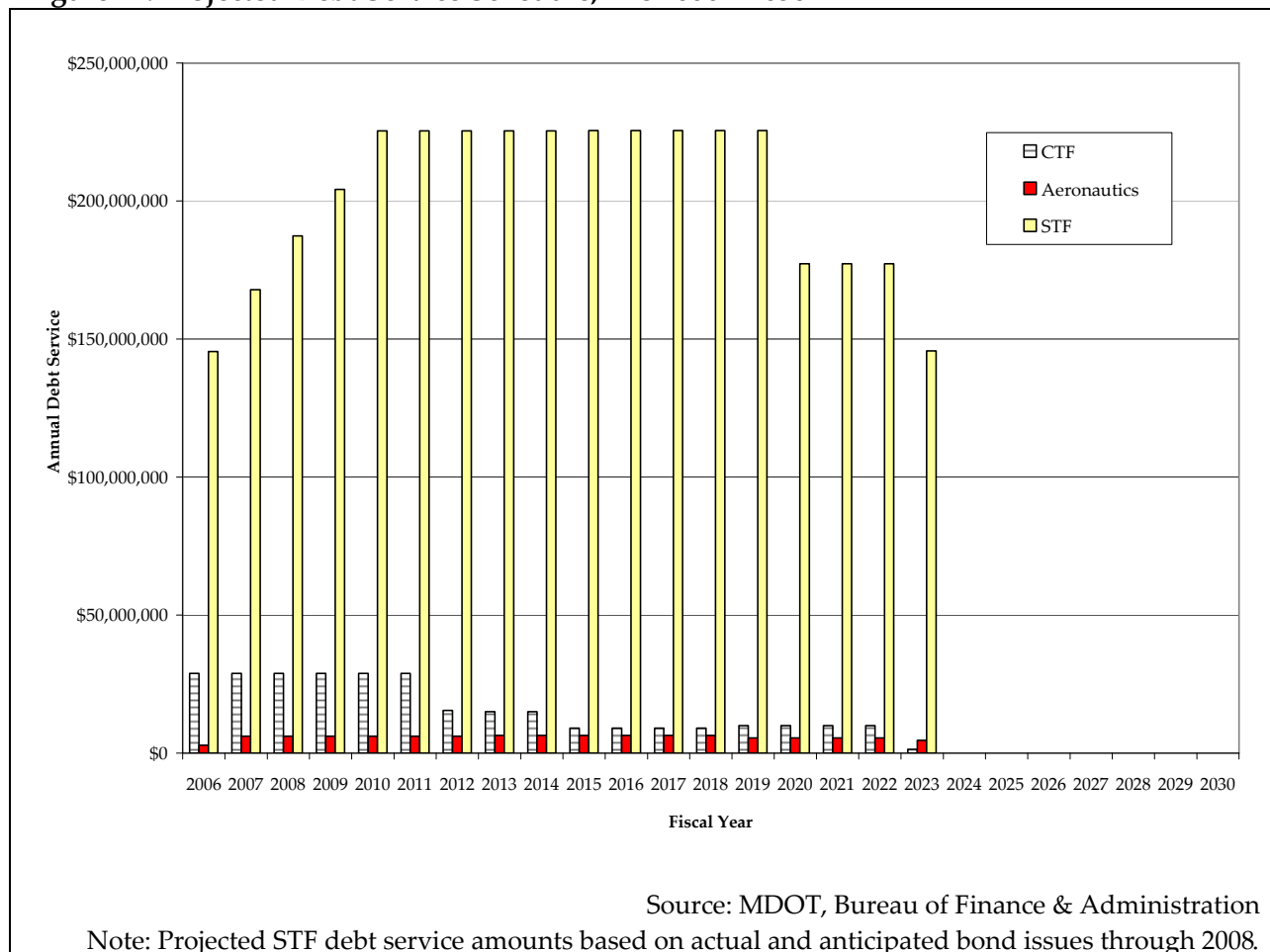
Bonding for highway and bridge projects has been a financing tool used by the Michigan Department of Transportation for the majority of its existence, starting in 1919. Bonding has been used to close financing gaps and to accelerate project delivery. Earlier project completion, improved system conditions, and economic benefits from transportation infrastructure have been viewed as positive offsets to increased debt service costs. The department has aggressively refinanced its debt to reduce overall debt service costs. As of September 30, 2005, outstanding STF debt was \$172 million in variable notes and \$1,402.6 million in long-term bonds for a total of \$1.575 billion.

The department has issued CTF bonds several times as a financing tool to supplement funding for capital projects. In recent years, bond revenue has been an essential source of funding for matching federal grants for transit buses, facilities, rehabilitation of state-owned rail lines, infrastructure improvements on Michigan's high-speed train corridor, and the Detroit Metropolitan Airport (Northwest Airlines) Midfield Terminal. The 2002 bond series was for \$88.5 million, of which \$10,403,871 (along with \$1,596,129 of 1992 bond series revenue), was used for the Detroit Metropolitan Airport Midfield Terminal. In 2003, \$12 million of CTF bonds was sold to replace the \$12 million used for the Detroit Metropolitan Airport Midfield Terminal. State Aeronautics Fund revenues are used to satisfy the debt service for the CTF bonds used for the Detroit Metro Wayne County Airport Midfield Terminal project. As of September 30, 2005, outstanding CTF debt was \$249.2 million in long-term bonds.

In 2002, a five-year “Airport Safety and Protection (ASAP)” plan was proposed. The ASAP bond program, as proposed, involved the sale of up to \$60 million in CTF bonds to be used to match available federal funds for safety and security projects at Michigan airports. The bonds would be secured by CTF revenue, rather than SAF revenue, because the State Transportation Commission has no statutory authority to sell SAF revenue bonds. Debt service for the ASAP bonds is provided by the SAF, applying funds provided by P. A. 680 of 2002 (Airport Parking Tax Act). In 2003, \$24 million in ASAP bonds were issued. The remaining \$36 million in ASAP bonds were issued in May 2006.

The following graphs show projected debt service amounts by year for the STF, CTF and SAF. The department’s total outstanding debt at the end of 2005 was \$1.82 billion. Further discussion on how these debt service schedules impact revenues available for capital programs can be found in the revenue forecasting section of this report.

Figure 11: Projected Debt Service Schedule, FYs 2006 – 2030



2.2.8.1 Authority for Transportation Bond Program

Article IX, Section 9 of Michigan's 1963 Constitution mandates that revenue from specific taxes on motor fuels and on vehicle registrations be used exclusively for transportation purposes. This section gives constitutional authorization for debt secured by constitutionally-restricted transportation revenue, and indicates that transportation notes and bonds issued under the authority of this section are not general obligations of the state of Michigan.

Statutory authority for borrowing secured by constitutionally-restricted transportation revenue is found in Public Act 51 of 1951. Act 51 authorizes the Michigan State Transportation Commission to issue notes or bonds by pledging as payment constitutionally-restricted transportation revenue. Act 51 also authorizes the Michigan State Transportation Commission to issue notes or bonds in anticipation of federal revenue, and authorizes the refunding of previously issued bonds.

2.2.8.2 Controls and Oversight

Section 18k of Act 51 requires that the Michigan State Transportation Commission provide to the House and Senate Appropriations Committees the list of projects for which notes or bonds are to be issued at least 30 days prior to issuance. If the Michigan State Transportation Commission determines that the projects for which bonds were issued should change, Section 18b(4) requires that the Commission adopt the change by resolution, and that notice of intention to adopt the resolution be given to the House and Senate Appropriations Committees. Although Act 51 includes these notification provisions, the act does not require legislative authorization for the Michigan State Transportation Commission to issue notes or bonds, and does not give the appropriations committees, or legislature as a whole, authority to approve or reject the proposed project list. Proceeds from the sales of notes or bonds can be used only for projects included in the note or bond resolution project list. However, the proceeds are not earmarked for any particular project or projects on the list. Some of the projects on the list may be constructed using other state-restricted or federal aid revenue sources. After approval of the resolutions, the department will time the actual sale of the debt issue based on anticipated cash flow needs and on market conditions.

2.2.8.3 Commission-Adopted Debt Management Policy and Guidelines

Policy - The department shall develop bonding guidelines to standardize and rationalize the issuance of long-term debt for the purpose of building transportation facilities. The ability to issue such long-term debt is authorized under Act 51 of 1951 as amended, and Section 9 Article IX of the Michigan Constitution. Under Act 51 of 1951, the Michigan State Transportation Commission must review for approval all proposals to issue long-term debt for capital financed transportation projects. The department shall establish general guidelines that, in addition to other information available, consider long-term revenue projections, projected inflation, and the economic needs of the state for

the Michigan State Transportation Commission to use in planning and reviewing long-term debt proposals for approval.

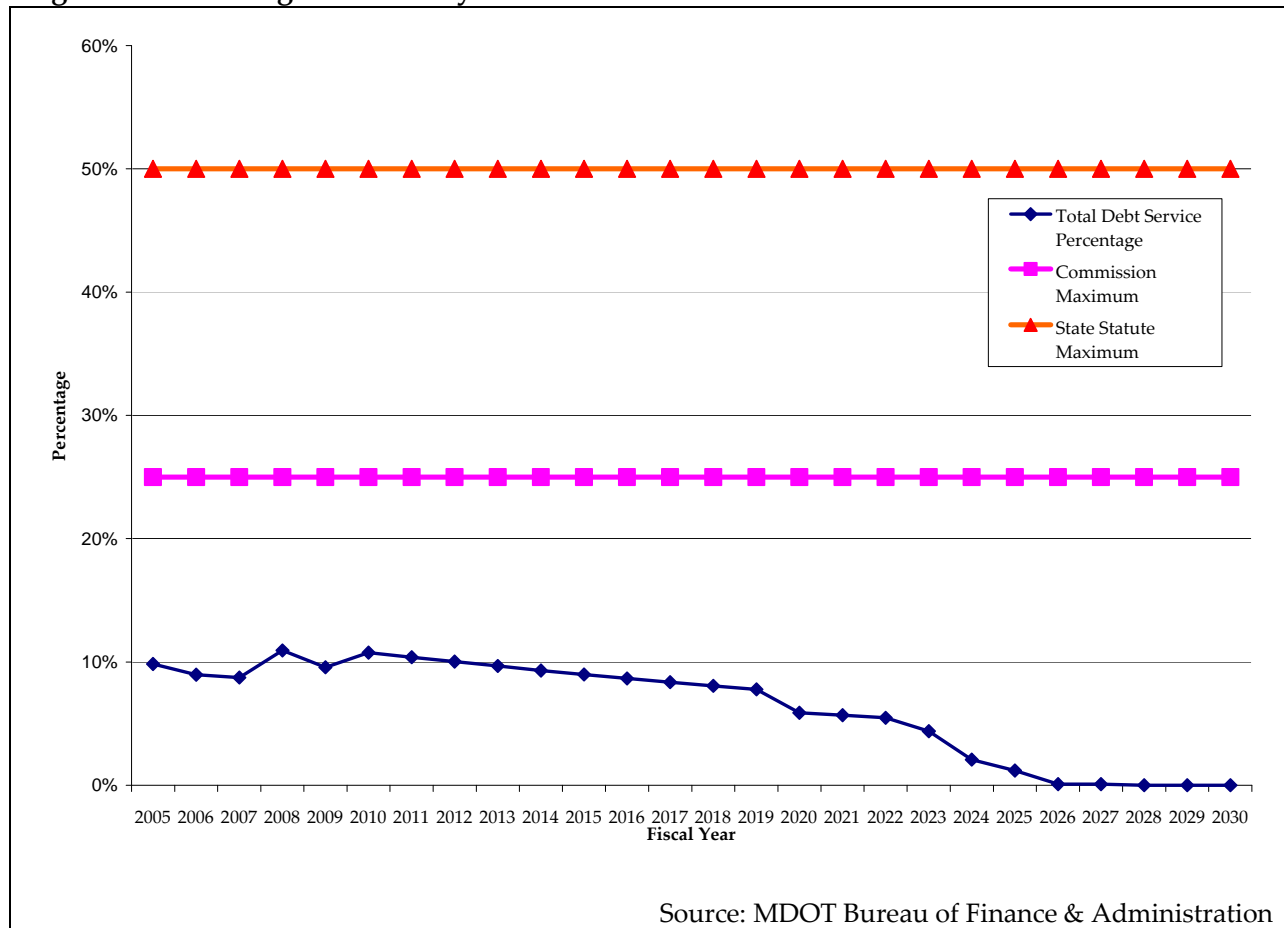
Guidelines – The Michigan State Transportation Commission must review for approval all bonding proposals. The department will use established criteria in addition to any other criteria that the Director deems to be appropriate. Criteria such as long-term revenue projections, projected inflation and economic needs of the state, in addition to the established criteria, may be used to determine feasibility of bonding and the actual issuance of bonds. Bonding will be utilized only for capital projects, infrastructure, and equipment. Normal operating costs and routine maintenance are not appropriate uses of bond funds.

2.2.8.4 Debt Limits

Act 51 limits transportation-related debt service to 50 percent of the previous year's constitutionally-restricted transportation revenue. Thus, transportation revenue pledged to secure bonds or notes must be at least twice the amount of the related transportation debt service (the Michigan State Transportation Commission guideline is to limit debt service to 25 percent of revenues). Current debt service is below these statutory and guideline limits. As of September 30, 2005, available revenues were 10.3 times the amount needed to cover State Trunkline Fund debt service, and 7.9 times the amount needed to cover CTF debt service. STF debt service ratio does not include debt service on short-term federal grant anticipation notes, known as GARVEE.

Figure 12 depicts MDOT's percentage of debt to STF revenue for future years. However, these estimates do not take into account any future bonding, which would increase the future year debt service percentage.

Figure 12: Percentage of Debt Payments to STF Revenue



2.3 Local Transportation Revenue Sources

This section provides a brief background to the local revenue portion of the transportation system. Revenues at the local level for roads are generally held by local governing bodies. MDOT does not have jurisdiction over local roads and therefore does not maintain data regarding the revenues associated with these roads. Revenues for local transit agencies are generally held by the agency or in some cases, passed through from MDOT to the local agency.

2.3.1 Local Highway Revenues

Funding for roads on the local level is generally a mix of federal, state, local general funds and/or local property tax millages. (Please note, that in Michigan, the property tax rate is called a millage, and it is figured in mills.) A mill equals one dollar in taxation for every \$1,000 in

taxable value. As discussed earlier in this report, the majority of funding for local roads and bridges, under the jurisdiction of a County Road Commission or the jurisdiction of a City or Village, comes from state revenue, which is determined by the Act 51 formula distribution. Federal funding is passed through from the state level for local roads that are eligible for funding. Local revenue sources, such as local general funds, property or special assessment taxes, provide the remaining portion. These funds are needed to provide required “local match” to federal or state funds.

2.3.1.1 County Road Commissions

County Road Commissions have no taxing authority. They get the majority of their funds from fuel taxes and vehicle registration fees passed through from the state as defined by the Act 51 formula distribution. Except for the County Road Commissions' ability to impose fees for things like permits, no other funding mechanism is in place to increase funding for road improvements. In order to generate the “local match” funding needed for the state funds, funding is typically provided from the local municipality where the improvement is located. “Local match” funding can come from the general fund of the municipality, or a property tax millage. County and township boards have the authority, with voter approval, to raise property taxes dedicated for road building or improvement.

2.3.1.2 Millage/General Funds

Townships are not legally obligated to maintain or repair county roads because they do not have jurisdiction over the public roads. Townships can choose to finance local public roads with general fund revenues for maintenance and improvement of county roads within a township or for widening of state trunkline highways in unincorporated areas of the township. Utilizing general fund revenues for roads does not require a vote; however, general funds are utilized for many purposes and choosing to fund road improvements with general fund revenues may reduce revenues for other programs.

Townships can also levy a millage for road improvements. For fewer than three mills, voter approval is not mandatory, for three mills, a vote is necessary, and the levy cannot exceed six mills. Currently there are numerous townships with millages in place for continual road improvements. Thirteen counties in Michigan have also adopted a millage for road and street improvements. Typically, millages at the county level are in rural areas, where the county government is more predominant than the rural townships and villages.

Another means of taxation for infrastructure improvements is a special assessment district. Special assessment districts provide the means for townships to assess property owners for private road projects because public funds may not be spent on private roads.

2.3.1.3 Sales Taxes: Local Transportation Option

The Michigan Constitution provides for a sales tax on retailers of no more than six percent of their gross tangible sales of personal property. Michigan's current sales tax rate is six percent. All but five states levy a sales tax, most in the three to seven percent range. Some other states allow some local governments (usually counties or high-population cities) to

levy a separate sales tax in addition to the state levy. In many cases, this has been used to fund local transportation projects, such as road building, maintenance or transit projects. If Michigan cities desire to increase a sales tax rate for transportation improvement options, it could only be accomplished through a constitutional amendment.

2.3.2 Local Transit Revenues

MDOT has detailed information about local funding for transit operations, because MDOT provides state operating assistance to all transit agencies, and federal operating assistance to rural transit agencies, in the form of a percentage of total eligible expenses. As a result, transit agencies must submit operating budgets to MDOT and from these budgets MDOT can determine the contributions of state, federal, and local funding. The percentage of operating expenses supported by federal, state, and local funding is shown in **Table 3**. Local funding is provided by millages and local general funds. Of Michigan's 78 public transportation systems, 66 providers reported either a transit millage (taxes collected directly for transit) or local general funds support.

Table 3: Michigan Transit Agency Operating Expenses and Revenue Sources

<i>Fiscal Year</i>	<i>Total Eligible Expenses (in millions)</i>	<i>Federal % of Eligible Expense</i>	<i>State % of Eligible Expense</i>	<i>Farebox % of Eligible Expense</i>	<i>Local % Of Eligible Expense³</i>
2004 ¹	\$430.5	5%	38%	15%	42%
2000 ²	\$350.2	3%	43%	20%	34%
1995 ³	\$253.8	13%	40%	23%	24%

Source: MDOT

¹ 2004 data from the Public Transportation Management System (PTMS) reconciled Operating Assistance Report (OAR).

² 1995 data from PTMS annual audited OAR.

³ Includes: Taxes Levied Directly for/by Transit Agency, Local Operating Assistance (e.g. general fund contributions), Non-transportation Revenues, and miscellaneous revenue.

2.3.3 Local Aviation Revenues

With few exceptions, all USDOT, FAA, and MDOT aviation programs mandate local funds be provided as a requirement to receiving state and/or federal funds for a project. (The US DOT Essential Air Service Program does not require local funding.) These local funds can come from many sources: local government airport sponsors, airport authorities, other airport owners, airport user groups, and business groups, such as chambers of commerce, are just some of the entities that can provide airports with local funds.

In accordance with legislation adopted by the Congress, individual airports may assess a Passenger Facility Charge (PFC) on enplaning passengers. Airports may charge up to \$4.50 per

ticket under this program. Such PFCs are to be used by the airports to fund FAA-approved airport improvement projects. When the FAA approves a PFC, the legislation requires airlines and travel agents to collect them from their passengers.

Local funds often are provided as part of the operating budget of the governmental unit. Local governments also have the ability to seek millages for upkeep of the airport.

2.4 Private Transportation Revenue Sources

2.4.1 Private Intercity Bus Revenues

Intercity bus service in Michigan is both a function of: 1) state contracts with intercity carriers that are funded with state and federal funds and 2) privately-funded service. MDOT helps support a core network of intercity bus routes, providing operating, marketing, and capital assistance to its two intercity bus carriers, Greyhound Lines and Indian Trails. State contracts for service in the Upper Peninsula and the Northern Lower Peninsula guarantee the contracted carrier minimum revenue per mile. Without these contracts there would be little to no intercity service in these areas of the state, since revenues would not support carrier provided service. MDOT, in consultation with the contracted carrier, determines the routes and service levels for the state subsidized service. Connectivity to other Michigan routes and national service and state and federal funding levels are the driving factors in determining the intercity bus service that will be funded by MDOT. Based on current contract rates, MDOT invested about \$1.5 million in state and federal funds for intercity bus operating subsidies in FY 2005. Based on passenger fares, the subsidized routes generated about the same amount of revenue for the carriers in FY 2005.

In southern Michigan, both intercity bus carriers provide service independent of state contracts. Greyhound Lines operates daily intercity bus service along I-94, I-75, I-96, I-196, and US-31. Indian Trails' scheduled intercity bus service is along I-94, I-75, I-69, and US-131. Corporate decision-making and private investment determine the intercity routes bus service that the carriers provide in southern Michigan. MDOT does not play a role in determining the level of private investment made in intercity bus service in southern Michigan, nor in planning for service levels. The amount of private investment and revenue generated from service in southern Michigan is proprietary information.

2.4.2 Bridge Authorities and Private Bridge Companies

Michigan has two bridges with organized bridge authorities; each authority oversees the finances and operations for the bridge. The bridge authorities are organized to collect tolls as a means of offsetting the operations and maintenance costs of the bridge.

The Mackinaw Bridge Authority (MBA) is a public agency organized to manage bridge finances and operations. A new agreement was approved by Governor Granholm in September 2005, which affirms the Authority's traditional and independent functions and the legal obligation of MDOT to assist MBA in meeting its responsibilities. A key element of the agreement providing for the allocation of duties and functions is a commitment by both the department and MBA to

work together to find administrative efficiencies. Under the agreement, MBA will continue to exercise its traditional independent decision-making role over matters involving the bridge, including business and strategic plans, budgeting, finances, investments, risk management, insurance, and contracts, as well as oversight of the inspection, maintenance, and repair of the Mackinac Bridge. MDOT will work to implement decisions made by the Authority consistent with state law.

The International Bridge at Sault Ste. Marie is governed by a joint authority of United States and Canadian representatives. It is the only vehicular crossing between Ontario and Michigan within a 300-mile distance. The bridge connects two cities, Sault Ste. Marie, Ontario with Sault Ste. Marie, Michigan. It is a convenient route for goods moving by truck from Northeastern and Eastern Ontario, as well as Northern Quebec and the Montreal area, to the Upper Great Lakes states.

MDOT manages the US portion of the Blue Water Bridge, between Sarnia, Ontario, and Port Huron, Michigan. The Canadian portion is managed by the Canadian Blue Water Bridge Authority. Revenues are collected from tolls in order to fund operations and maintenance on a regular basis. The funds for the Blue Water Bridge are deposited into the STF. The Blue Water Bridge has also been appropriated \$3 million in FY 2006 to be set aside for capital improvements. The \$3 million annual appropriation is an estimate of the amount of funding available for capital after payments for operations, maintenance, bond debt service, and loan debt service. The amount set aside is determined annually, recommended by the Governor, and appropriated by the Legislature.

Table 4: Michigan Public Bridge Authorities: 2003 Toll Revenues (in millions)

<i>Name of Facility</i>	<i>Operating Authority</i>	<i>Road and Crossing Tolls</i>
Blue Water Bridge	MDOT/Canadian Blue Water Bridge Authority	\$15.8
Mackinac Bridge	Mackinaw Bridge Authority	\$10.5
International Bridge at Sault Sainte Marie	International Bridge Authority	\$5.1*

Source: "Receipts of State-Administered Toll Road and Crossing Facilities", Highway Statistics 2003, Office of Highway Policy, FHWA, 2003.

* Canada receives half of these revenues

The Detroit International Bridge Company is the current owner and operator of the Ambassador Bridge that links Windsor, Canada with Detroit, Michigan. This bridge has been privately held since its construction in 1929. All funds associated with tolls charged are held privately for its improvements, operations and maintenance.

The US portion of the Detroit-Windsor Tunnel is owned by the City of Detroit, while the Canadian portion is owned by the City of Windsor. It is currently operated by the Detroit and Canada Tunnel Corporation, which oversees revenues for operation and maintenance.

2.4.3 Private Railroad Revenues

Since railroads are private entities, the amount of private investment and revenue generated from the rail operations is proprietary information. All but 650 of the nearly 4,000 miles of rail line in Michigan are privately owned. MDOT owns 650 miles of rail lines and contracts with private railroad operators to provide service to shippers on those lines. Those railroad operators are contractually required to provide maintenance on the lines, but MDOT does undertake and fund occasional capital projects.

2.4.4 Private Airline Revenues

The aviation industry provides nearly all commercial air services in Michigan, without federal, state, or local financial assistance. The exception is for communities receiving scheduled service with financial support through the federal SCASD or EAS programs (see Aviation Technical Report for a full discussion of these programs).

Aviation companies invest in facilities and equipment they use at Michigan airports. The amount and use of private industry funds varies by company and is not predictable for purposes of this report. Service to communities is based upon many variables, the first of which is profit. Thus, MDOT has no control of air carrier investments. Based upon market analysis, the state may attempt to influence services provided, and thus investments made by the private sector where financially feasible and appealing to the for-profit motive. These companies also pay rent for use of airport-owned facilities. By federal law, the airports may only be used for aviation related purposes.

Chapter 3. 2005 Base Revenue and Historical Trends

This chapter establishes the financial baseline for forecasting future transportation revenues available to support the transportation system in Michigan. FY 2005 federal and state revenues are identified by mode and past funding trends are analyzed.

3.1 Highway Revenues

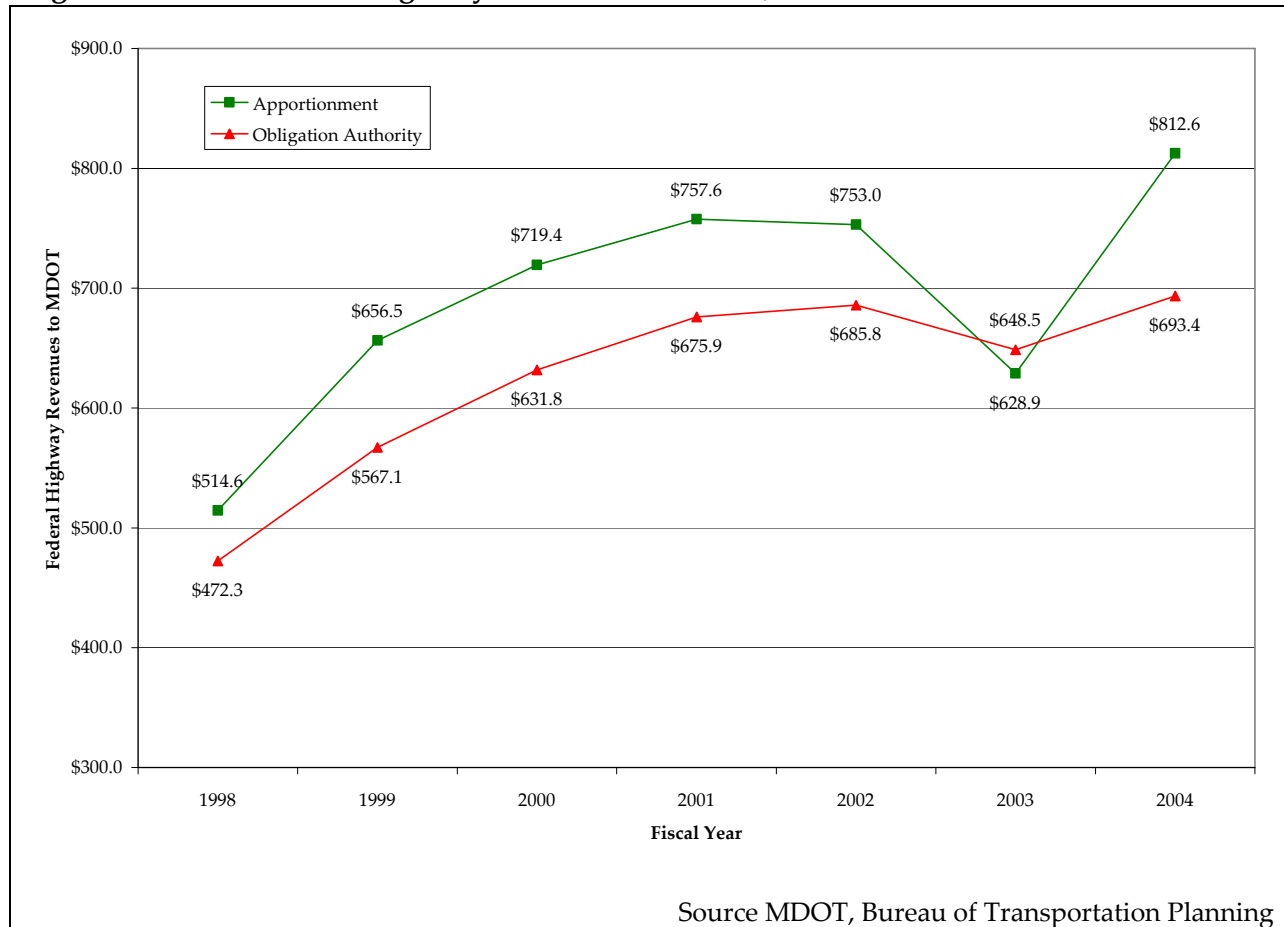
The 2005 federal and state highway revenues are explained in the following sections.

3.1.1 Federal Highway Revenues

Michigan estimates federal aid based on its obligation authority. Since states are limited by an obligation ceiling, they are not able to fully program and spend their entire apportionments. The amount of federal aid apportionments states may spend is limited by their obligation authority, so actual obligations are a more realistic number to use for estimating future revenue. For the 2005, base year MDOT estimated obligation authority available for use on Trunkline Capital Projects is \$689.5 million. This estimate includes all federal aid available to the MDOT Highway Program regardless of federal funding category.

As shown in **Figure 13**, over the TEA-21 period 1998 - 2003, federal revenues to MDOT peaked in 2002. The peak was due to Revenue Aligned Budget Authority (RABA), a mechanism designed to increase federal revenues to states when the revenues going into the HTF are increasing. The loss of RABA funding due to a decline in revenues going to the HTF account for the decrease in federal aid to Michigan. During the SAFETEA-LU time period, 2005 - 2009, revenues to Michigan are expected to increase at a rate of 3.6 percent.

Figure 13: Actual Federal Highway Revenues to MDOT, 1998 to 2004



3.1.2 State Highway Revenues

The FY 2005 State Trunkline Fund (STF) total revenue is \$751.3 million. This source of revenue has had steady growth over the last 20 years. The growth is a result of fuel tax increases, vehicle registration increases, and policy decisions. Historically, from FYs 1985 to 2005, state fuel tax revenue has had a modest rate of growth with the exception of FYs 1996 to 1998 when the state gasoline tax rate was increased from 15 cents to 19 cents per gallon. Over the same time frame, vehicle registration revenue has grown at a somewhat faster rate, increasing from \$286.7 million in FY 1985 to \$863.4 million in FY 2005. This is due to the registration fee being a

percent of the ever-increasing base price of vehicles. In FY 2004, vehicle registrations experienced a one-time revenue increase due to legislation, which changed trailer registrations to a permanent plate structure.

In addition to the STF revenue funding state road and bridge projects, it must pay for non-capital uses within the Michigan Department of Transportation. These non-capital uses include debt service, administration, grants to other departments, torts and court awards, buildings and facilities, and other fixed expenses. The net STF state revenue available in FY 2005 for routine maintenance and the capital highway program was \$526 million.

Figure 14: Michigan Transportation Fund (MTF) Revenue, by Major Source

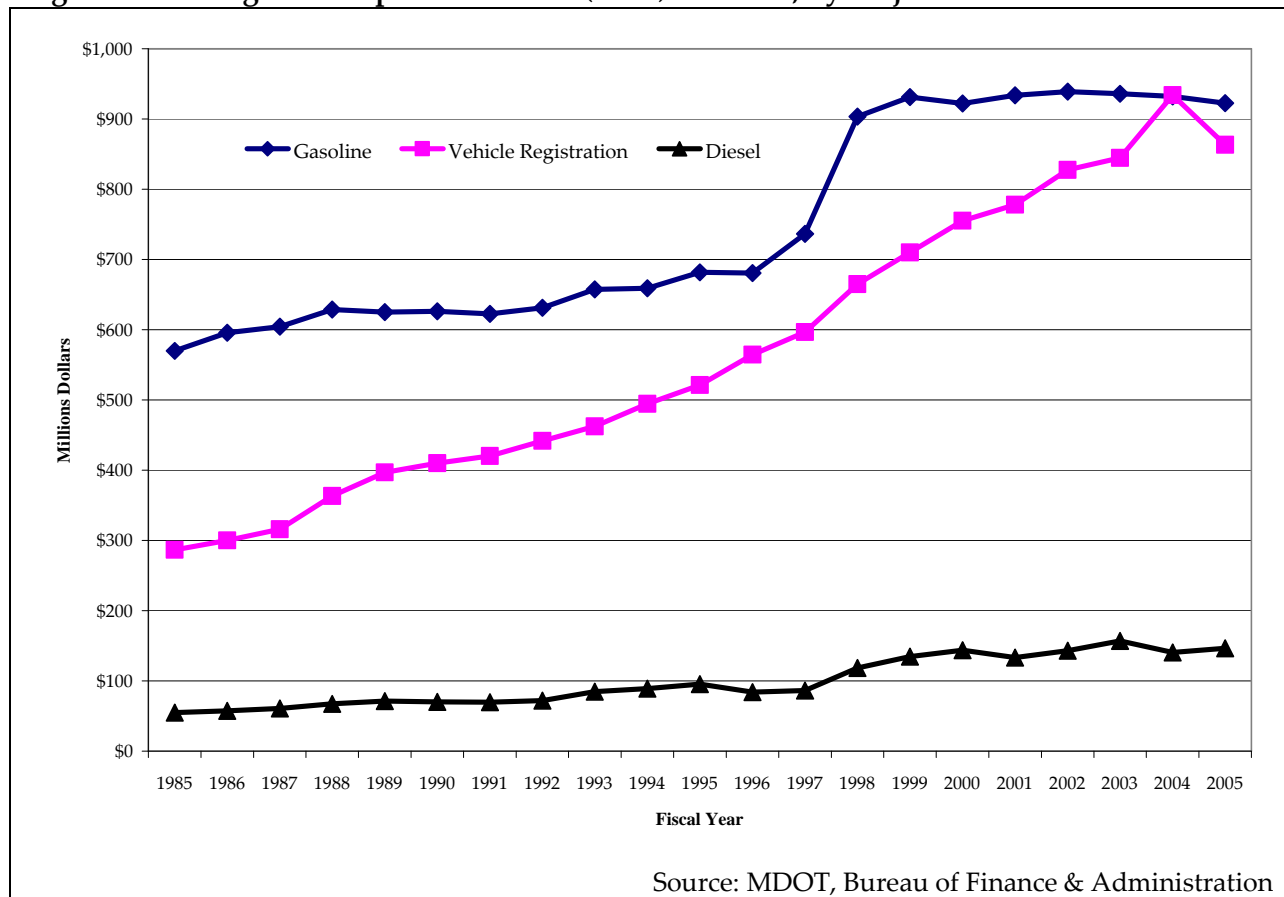


Table 5 shows the total STF revenue for highway uses (excluding bond proceeds) that was available in 2005.

Table 5: Total 2005 STF Revenue for Highway Uses (in millions)

<i>Revenue Source</i>	<i>FY 2005</i>
Federal Revenue	\$689.5
State Revenue	\$751.3
Total STF Revenue	\$1,440.8

Source: MDOT, Bureau of Transportation Planning, Bureau of Finance & Administration

Note: Does not include bond proceeds

3.2 Other Surface Transportation Funding

The 2005 based revenues from state and federal funds for transit, intercity passenger, freight, and aviation are explained in the following sections.

3.2.1 State Funding of the Comprehensive Transportation Fund

The FY 2005 Comprehensive Transportation Fund (CTF) revenue was \$229.4 million, a 75 percent increase over FY 1985 in “pre-inflation” dollars. The two major state funding sources of the CTF, a portion of the Michigan Transportation Fund (MTF) and a portion of the state sales tax on automotive-related items, have both had a small steady increase over the last 20 years. The amount of revenue from gasoline tax from the MTF to the CTF has increased at a lesser rate than gasoline tax revenue to the State Trunkline Fund (STF). This is due to the exclusion of the CTF from the 15 cents to 19 cents per gallon increase in the state gasoline tax rate in FY 1997. In the last three years, sales tax from the sales of cars has decreased, while sales tax collected from gasoline stations increased. This recent trend is likely a reflection of the economy and the increase in the price of gasoline.

Since FY 2001, the level of CTF revenue has been inconsistent. This was due primarily to the redirection of revenue to the General Fund and the STF for several years. **Table 6** shows the net revenue distributed to the CTF from FYs 2001 to 2005 and explains the various reductions. Reductions were made to the CTF funding available for use in the last three years. These reductions were based on estimated revenue declines after the appropriation of funds.

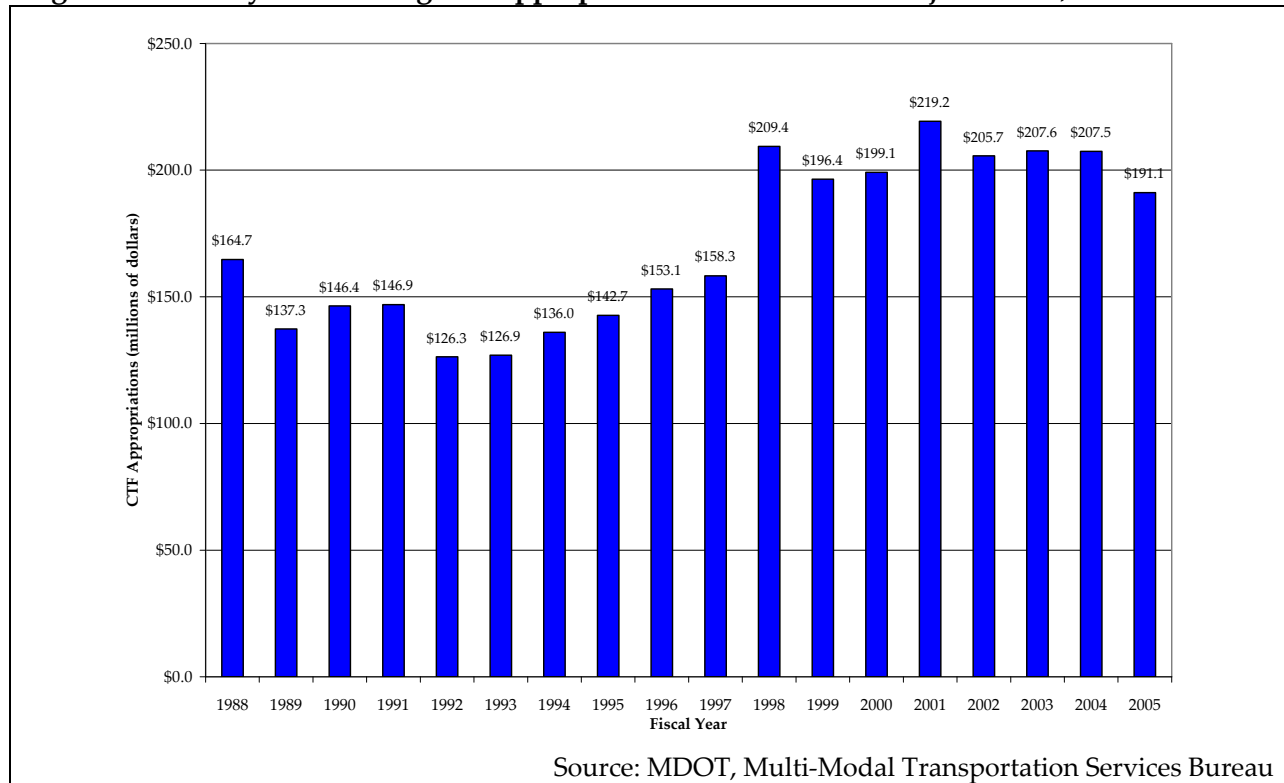
Table 6: Comprehensive Transportation Fund Revenue Sources (in millions)

	<i>FY 2001</i>	<i>FY 2002</i>	<i>FY 2003</i>	<i>FY 2004</i>	<i>FY 2005</i>
MTF Transfer	\$159,197	\$160,531	\$163,744	\$176,168	\$167,262
CTF to STF (PA 151 of 2003)				(10,000)	
<i>MTF Subtotal</i>	<i>\$159,197</i>	<i>\$160,531</i>	<i>\$163,744</i>	<i>\$166,168</i>	<i>\$167,262</i>
Auto-Related Sales Tax	\$ 73,728	\$ 78,819	\$ 79,440	\$ 75,516	\$ 77,799
EO 2001-9		(22,350)			
PA 139 of 2003				(10,556)	(10,875)
PA 544 of 2004					(10,000)
<i>Sales Tax Subtotal</i>	<i>\$ 73,728</i>	<i>\$ 56,469</i>	<i>\$ 79,440</i>	<i>\$ 64,960</i>	<i>\$ 56,924</i>
Interest	\$ 2,240	\$ 727	\$ 327	\$ 98	\$ (19)
License and Permits	\$258	\$294	\$264	\$290	\$277
Miscellaneous	\$3,180	\$2,492	\$5,369	\$6,697	\$7,044
<i>Other Subtotal</i>	<i>\$5,678</i>	<i>\$3,513</i>	<i>\$5,960</i>	<i>\$7,085</i>	<i>\$7,302</i>
Total CTF Revenue	\$238,563	\$220,513	\$249,144	\$238,213	\$231,488
<i>Revenue difference from prior year</i>	<i>---</i>	<i>(\$18,050)</i>	<i>\$28,631</i>	<i>(\$10,931)</i>	<i>(\$6,725)</i>

Source: MDOT, Multi-Modal Transportation Services Bureau

The CTF supports debt service obligations, costs of operations (including interfund grants), and transportation programs. The large reduction in revenue available for CTF in the last several years has significantly impacted programs. State funding ceased for some programs and was significantly reduced for several others. **Figure 15** provides a history of CTF program appropriations and revenue adjustments for CTF programs from FYs 2001 to 2005.

Figure 15: History of CTF Program Appropriations less Revenue Adjustments, 1988 to 2005



Over the last 10 years or more, CTF program appropriations have been relatively consistent. As a result of Act 51, about 90 percent of the annual program appropriations have supported transit services and about 10 percent have supported intercity passenger and freight.

3.2.1.1 State CTF – Transit

As shown above, state transit funding is provided as part of annual CTF appropriations. In FY 2005, the amount of CTF funding provided for transit programs was not reflective of the historic allocation of CTF among the various programs it supports. Therefore, base year funding is being presented in terms of the annual average funding over the last five fiscal years' average. The adjusted base year CTF funding (five-year average) for transit programs was \$185.8 million.

3.2.1.2 State CTF – Intercity Passenger and Freight

As shown above, state intercity passenger and freight funding is provided as part of annual CTF appropriations. In FY 2005, the amount of CTF funding provided for intercity

passenger and freight programs was not reflective of the historic allocation of CTF among the various programs it supports. Therefore, base year funding is being presented in terms of the annual average funding over the last five fiscal years' average. The adjusted base year CTF funding (five-year average) for intercity passenger and freight programs was \$20.4 million.

3.2.2 Federal Intercity Passenger and Freight

As noted in **Section 2.4** federal funding for intercity passenger and freight programs differ significantly from mode to mode within this grouping. Further information is provided below.

3.2.2.1 Intercity Bus

Federal intercity bus funding is provided under a transit program, specifically, as part of the Section 5311 Non-urbanized Area Formula funds. Under Section 5311f, both TEA-21 and SAFETEA-LU require 15 percent of Section 5311 appropriation be set aside to support intercity bus transportation, unless the state certifies that the intercity service needs of the state are being met. Fifteen percent of Michigan's Section 5311 allocation for FY 2005 was \$1.4 million. With the growth in this program under SAFETEA-LU, that amount increased to \$2.2 million in FY 2006.

3.2.2.2 Passenger Rail

Funding for passenger rail is not apportioned by formula, but rather, comes either through authorization or appropriation earmark, or through competitively-awarded programs. Federal funding has varied widely over the past 20 years. **Table 7** shows the cumulative funding for rail passenger capital projects from FYs 1974 to 2004. Examples of rail passenger projects and funding during this time period are:

- \$19 million to cover half the cost to install an Incremental Train Control System (ITCS) on 63 miles of Amtrak's line between Mattawan and New Buffalo. This computer, radio and GPS-based communications system enables Amtrak trains to operate at 95 mph over ITCS territory. Partners in the project included MDOT, the National Railroad Passenger Corporation (Amtrak), the Federal Railroad Administration (FRA), and General Electric Global Transportation Systems (GETS).
- \$9.5 million for the Ann Arbor to Detroit Rapid Transit Alternatives Analysis Study, designed to begin implementing the regional transit plan; provide direct transit connections between Ann Arbor, Detroit, and Metro Airport; and create an east-west spine on which to build a comprehensive, integrated regional transit network over time.

Table 7: Rail Passenger Capital Project Funding, FYs 1974 to 2004 (in millions)

<i>Projects</i>	<i>State \$</i>	<i>Federal \$</i>	<i>Other \$</i>	<i>Total</i>
Track rehab, grade crossings, terminals, and coaches	\$64.8	\$32.1	\$15.8	\$112.7

Source: MDOT, Multi-Modal Transportation Services Bureau

MDOT received no federal monies for passenger rail in FY 2005.

3.2.2.3 New Starts

Michigan received two Section 5309 Capital Investment “New Starts” earmarks under SAFETEA-LU as described in **Section 2.1.2.4** Earmarks under this program are highly discretionary and the revenue is not guaranteed, since award of the federal funding is contingent upon the earmarked projects qualifying under the “New Starts” criteria. Therefore, we are not including the New Start earmarks in our baseline federal revenues.

3.2.2.4 Rail Freight

Little federal funding exists for rail freight. What does exist has, in recent years, been focused on highway-railroad at-grade crossings and their inherent roadway delays and congestion. Until the mid-1990s, federal programs existed to assist in meeting rail capital needs, but those programs have been phased out.

Earmarks in SAFETEA-LU direct \$29.36 million to Michigan for projects at seven crossings.

3.2.2.5 Marine and Port

Michigan received funding on four separate occasions for the construction of ferry boats and ferry terminals in accordance with the FHWA Ferry Boat Discretionary Program, 23 U.S.C. 147. The specific projects and corresponding dollar amounts are outlined below.

Table 8: FHWA Ferry Boat Discretionary Program Awards to Michigan (in millions)

<i>Project</i>	<i>FY Awarded</i>	<i>Federal Funds</i>	<i>State/Local Funds</i>	<i>Total Project</i>
Sugar Islander II Ferryboat: Eastern Upper Peninsula Transportation Authority (EUPTA)	1994	\$2.0	\$0.25/\$0.25	\$2.5
Emerald Isle Ferryboat: Beaver Island Transportation Authority (BITA)	1995	\$2.4	\$0.3/\$0.3	\$3.0*
Drummond Islander IV Ferryboat: EUPTA	1997	\$1.8	\$0.29/\$0.29	\$2.3
Dock Modifications at DeTour/Drummond Island: EUPTA	2000	\$0.45	\$0.06/\$0.06	\$0.56

Source: MDOT, Multi-Modal Transportation Services Bureau

* With Congressional approval, the unused balance of \$656,000 from EUPTA’s 1994 award was transferred to the BITA project, which raised the total to \$3,056,000 federal and \$764,000 state/local for a total of \$3.82 million.

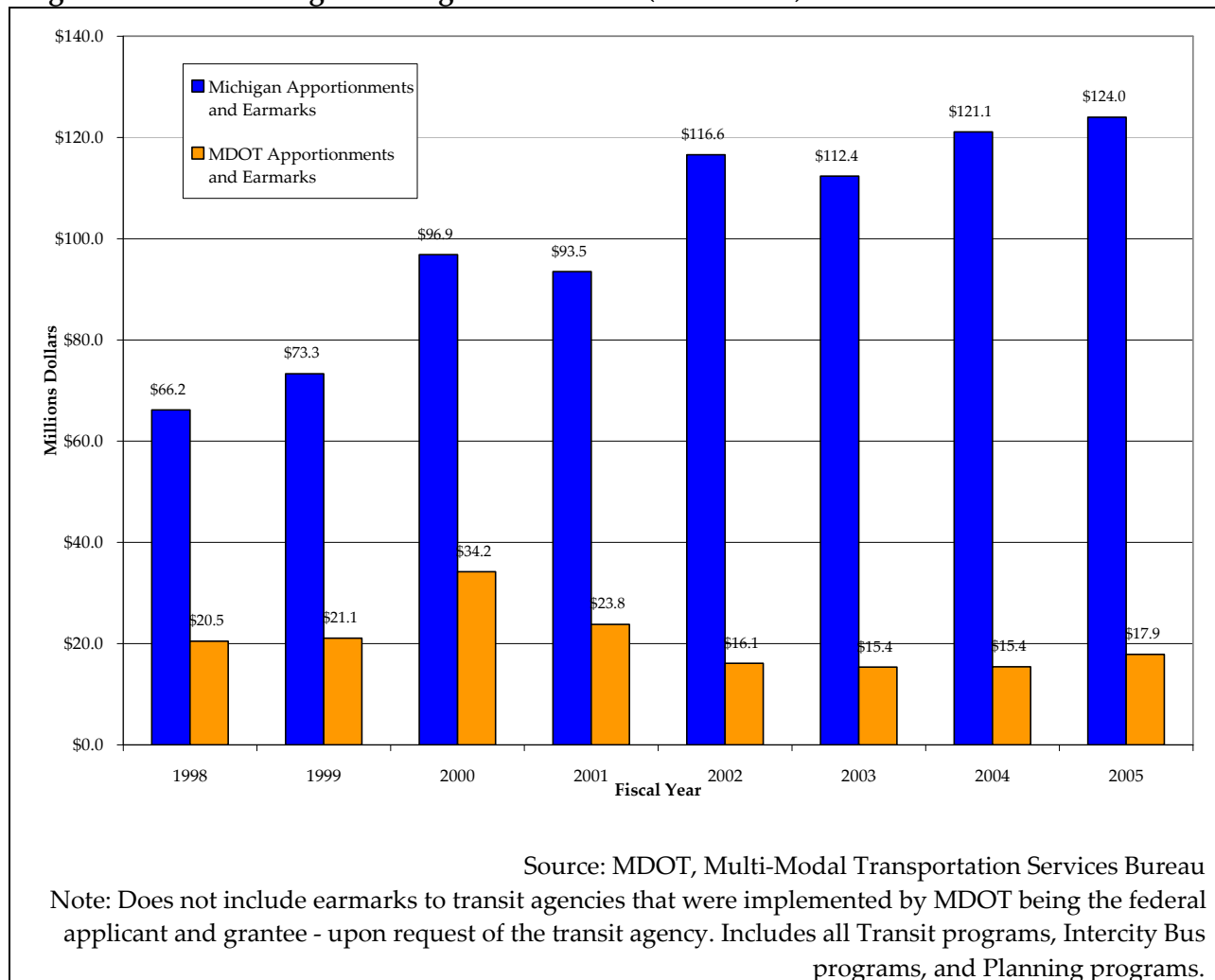
Michigan received no funding for marine ports in FY 2005.

3.2.3 Federal Transit

Depending on the program, federal transit funds are provided to state DOTs and/or directly to local transit providers. For example, the Urbanized Area Formula Program is distributed directly to the local transit providers and the Non-urbanized Area Formula Program is distributed to MDOT. Some funds are distributed by formula, others are earmarks designated by Congress, and still others are awarded based on a competitive grant process. In FY 2005, \$119.7 million in federal transit funding came to Michigan, and of that \$23.8 million came directly to MDOT and was passed through to transit agencies and other service providers.

Table 1 in **Section 2.1.2.1** provides the distribution of this funding by federal program. In addition, a history of FTA apportionments and earmarks to Michigan is provided in **Figure 16**. It depicts the increase of FTA funding over the life of TEA-21 and into SAFETEA-LU. It is important to note that **Figure 16** includes all FTA apportionments, including transit planning and intercity bus, while **Table 1** provides information for federal transit funding only.

Figure 16: FTA Funding to Michigan and MDOT (in millions)



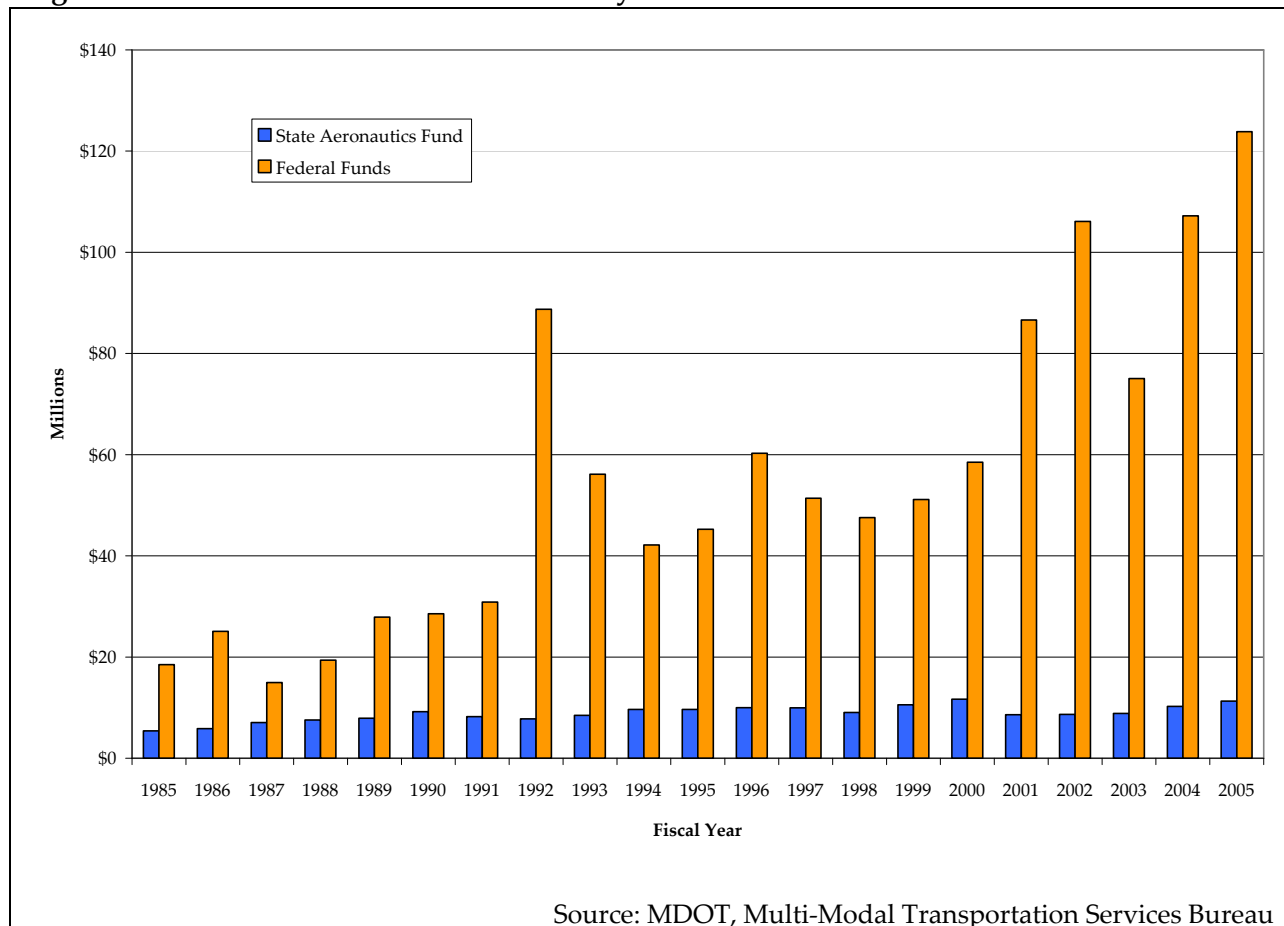
3.3 Federal and State Aviation Revenue

Sources of revenue to the State Aeronautics Fund (SAF) are explained in **Section 2.2.7**. Revenue for FY 2005, excluding federal funds, totaled approximately \$17.3 million. The single largest contributor of revenue to the SAF is the aviation fuel tax. In 2005, the fuel tax provided approximately \$6.719 million to the SAF.

Revenue of \$17.3 million in 2005, includes \$6 million from the Airport Parking Tax, which has a restricted use to repay ASAP bonds, finance state/local projects, and (at April, 2006) to provide match funds for federal grants to accomplish airport safety and protection projects. Because the ability to capture Parking Tax expires when ASAP bonds are repaid, it will not be included in base revenue. The current bonding program authorization expires in 2007, and no additional bond authorizations are planned at the present time. Base revenue reflects the remaining 2005 revenue of \$11.3 million.

Authorization for federal aviation funds also expires in 2007. Since the scope and funding for new or renewed federal programs are unknown, continuation of the current share for Michigan is being used herein. Approximately \$104 million was received for use at Michigan airports in 2005. **Figure 17** shows the revenues from the SAF and federal funds over the past 20 years.

Figure 17: Aviation Revenues 20-Year History



3.4 Total 2005 Base Revenue

Table 9 summarizes the state and federal financial baseline amounts, which will be used for forecasting future transportation revenues by mode. These amounts represent FY 2005 funding levels with the exception of the state transit and state intercity passenger and freight program amounts, which were established using the FYs 2001 through 2005 annual average.

Table 9: Total Baseline FY 2005 MDOT Transportation Revenue, by Program (in millions)

<i>Program</i>	<i>Federal</i>	<i>State</i>	<i>Total</i>
Highway Program	\$689.5	\$751.3	\$1,440.8
Transit Program	\$23.8	*\$185.8	\$209.6
Intercity Passenger and Freight Program**	***\$1.4	*\$20.4	\$21.8
Aeronautics Program	\$103.4	\$11.0	\$114.7
<i>Total MDOT Transportation Revenue</i>	<i>\$818.1</i>	<i>\$968.8</i>	<i>\$1,786.9</i>

Source: MDOT, Bureau of Transportation Planning, Multi-Modal Transportation Services Bureau

* Calculated using FY 2001 through 2005 annual average.

** Includes Intercity Bus, Passenger Rail, Rail Freight and Marine/Port programs.

*** Dedicated entirely to the Intercity Bus program. No baseline revenue for the Passenger Rail, Rail Freight or Marine Port programs.

Chapter 4. Forecast Assumptions and 2030 Revenue Forecast

This chapter forecasts the financial resources (federal and state) available through FY 2030 for MDOT's transportation system including: highways, transit, intercity bus, rail, marine/port, and aeronautics.

4.1 Highway Revenue Forecast

Michigan's system of state highways, county roads and municipal streets totals 120,260 miles. As of 2004, MDOT had jurisdiction over the 9,720-mile state highway system, which includes all "I", "US" and "M" numbered highways. Michigan's 89,755 miles of county roads are under the jurisdiction of 83 county road commissions and its 20,785 miles of municipal streets are owned by 533 incorporated cities and villages. This section only forecasts future transportation revenues available to support the MDOT highway system.

4.1.1 Federal Highway Revenue Forecast

Several assumptions need to be made in order to forecast federal revenues available to MDOT. Current federal legislation authorizes the federal highway program through 2009. It is assumed that further legislation will be passed and the highway program funding will remain essentially the same. Another assumption is that Michigan will continue to get roughly the same share of

the highway funds that it has received historically. We must also assume that Public Act 51 of 1951 will remain in place and 25 percent of all federal aid will go to local jurisdictions.

Starting with a baseline of MDOT trunkline obligations, the forecast assumes federal obligations will increase by 4.9 percent annually. This is 90 percent of the historic growth rate and allows MDOT to be fiscally conservative (and responsive to future needs). The growth rate was based on actual trunkline obligations between 1985 and 2004. This growth rate generates approximately \$34.0 billion over the Long Range Plan time period. The 2030 revenue forecast must also account for annual inflation. The annual inflation rate used is 3.1 percent, which is the average annual compounded increase of the Consumer Price Index-All Urban Consumers, Detroit, for the period covering 1985-2004 (US Bureau of Labor Statistics). After applying a 3.1 percent inflation factor to bring these revenues into 2005 dollars, \$21.7 billion is available to help meet Michigan's highway transportation needs.

4.1.2 State Highway Revenue Forecast

MDOT's state 2030 revenue forecast is based on a growth rate that reflects the historical pattern of state transportation revenue from 1985 to 2004. The rate includes all the state revenue to the STF and encompasses growth due to economic activities, as well as fuel and vehicle tax increases that occurred over the 20-year time frame. An alternative to the historic growth rate was developed to account for any potential shortfall in revenue. A conservative approach used the historical annual growth rate and applied a 90 percent factor; the result is an annual growth rate of 4.04 percent.

The 2030 revenue forecast must also account for annual inflation. The annual inflation rate used is 3.1 percent, which is the average annual compounded increase of the Consumer Price Index-All Urban Consumers, Detroit, for the period covering 1985-2004 (US Bureau of Labor Statistics). Using a base of \$751.3 million, an annual growth rate of 4.04 percent, and an annual inflation rate of 3.10 percent, MDOT estimates the state highway funding over the period of FYs 2006 to 2030 will be \$32.7 billion, which equals \$21.2 billion in FY 2005 dollars.

4.1.3 State Highway Non-Capital Uses

Before transportation revenue within the STF is available for road and bridge projects, non-capital uses must be deducted from the fund. These non-capital uses include debt service, administration, grants to other departments, routine maintenance, and other fixed expenses.

Debt service amounts were obtained from debt service schedules for prior issues, and estimated for anticipated bonding in FYs 2006 through 2008. It is anticipated that bonding beyond FY 2008 will occur; forecasts of highway revenues in this report do not include bonding beyond 2008. Amounts for future torts and court awards, and buildings and facilities were held constant. Routine maintenance, administration, grants to other departments, and other fixed expenses were increased using a long-term projection of four percent annually for the national Consumer Price Index. These amounts were then deflated to represent 2005 dollars.

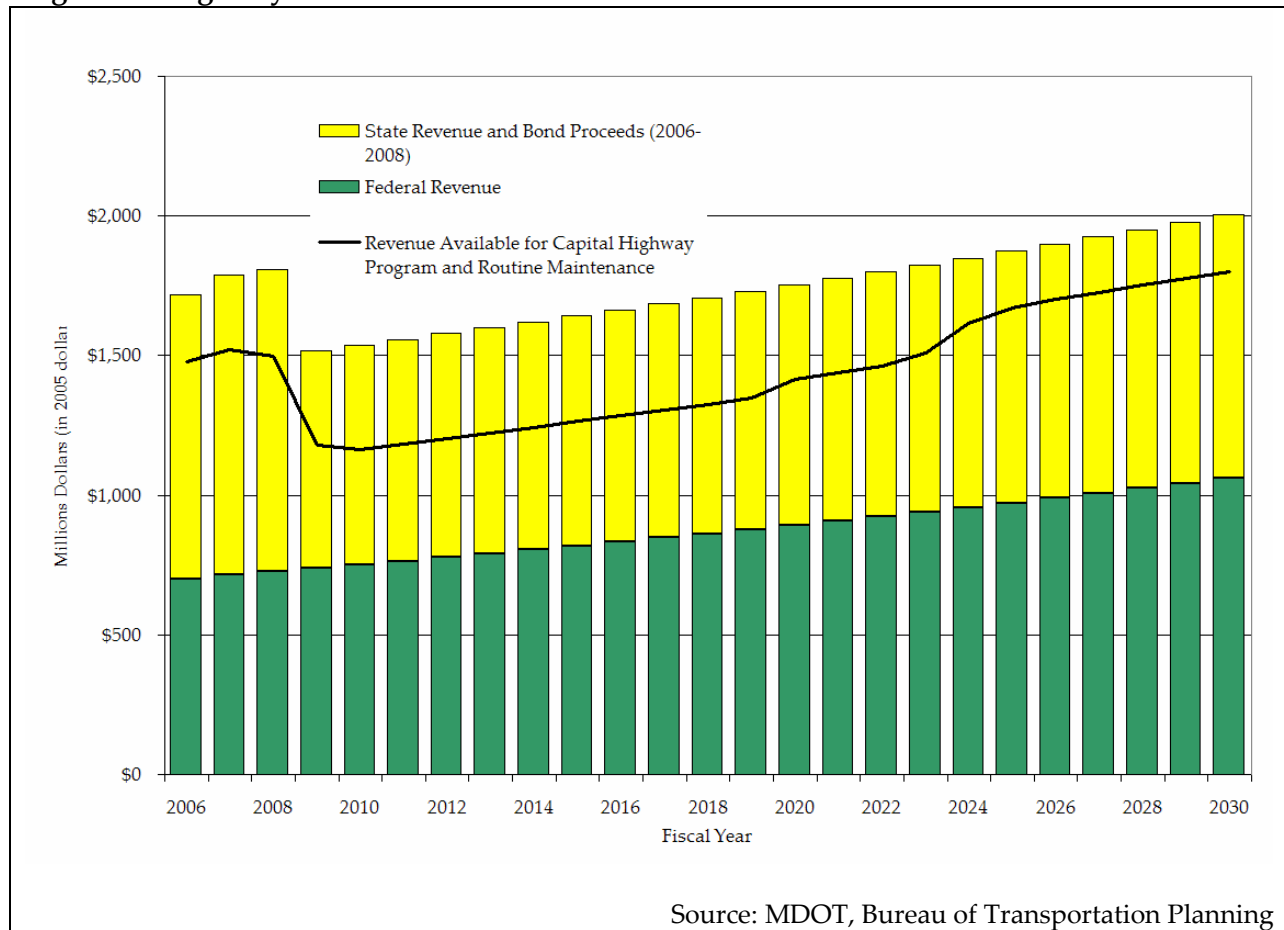
Table 10 illustrates the revenue forecasted to be available (in 2005 dollars) from the STF to fund the capital highway program through 2030. After deducting dedicated revenues for routine maintenance, debt service, and other "non-capital" uses, this amount is estimated at \$29.1 billion.

Table 10: Highway Revenue Forecast in 2005 Dollars (in millions)

	<i>Growth Rate</i>	<i>FY 2006 - FY 2030</i>
Federal Highway Revenue	4.9%	\$21,726.5
State Highway Revenue	4.0%	\$21,179.8
Bond Proceeds (2006-2008)		\$878.0
Less Non-Capital Uses		
Debt service (for bonds issued through 2008)		- \$3,118.4
Other non-capital uses		- \$4,587.9
Highway Revenue Available (Highway Capital Projects & Routine Maintenance)		\$36,078.0
Less Routine Maintenance		- \$7,028.2
STF Available (Highway & Bridge Capital Projects)		\$29,049.8

Source: MDOT, Bureau of Transportation Planning

Note: Forecasts of highway revenues in this report do not include bonding beyond 2008.

Figure 18: Highway Revenue Forecast

4.2 Other Surface Transportation Forecasting

4.2.1 State Revenue Forecasts (CTF)

The CTF state 2030 revenue forecast is based on a combined growth rate that reflects the historical growth trends of both the sales tax and non-sales-tax revenue to the CTF. The non-sales tax rate of 3.07 percent applies to the MTF funds distributed to the CTF as well as other miscellaneous revenue. One of the reasons this rate is less than the state highway revenue growth rate is the exclusion of the CTF from the four cents per gallon gasoline tax increase starting in FY 1997. The 3.07 percent rate includes a 90 percent factor applied, as with the highway growth percent, to account for any potential revenue shortfall.

The growth rate used for sales tax revenue to the CTF is 4.0 percent. This is a combined rate based on the growth trends of the two major sources of automotive-related sales tax to the CTF (automobile/accessory dealers and gasoline stations). The revenue growth rate for the gasoline station portion of the sales tax was adjusted to compensate for increased revenue due to the high increase in the price of gasoline over the last two years. This adjustment used the assumption that the high percentage increase in fuel is not sustainable over the next 25 years. The overall revenue growth rate for the CTF is the weighted average of the 3.07 percent non-

sales tax and 4.0 percent sales tax growth rates. This combined revenue growth rate is 3.22 percent.

The 2030 revenue forecast must also account for inflation. The annual inflation rate used is 3.1 percent, which is the average annual compounded increase of the Consumer Price Index-All Urban Consumers, Detroit, for the period covering 1985 - 2004 (US Bureau of Labor Statistics). Applying a 3.1 percent inflation factor to the 2006 - 2030 forecast results in about the same amount of revenue to the CTF in terms of FY 2005 dollars due to the growth rate being just slightly greater than the inflation rate.

Table 11 shows the estimated distribution of state CTF funding to the various modes for FYs 2006 through 2030. The estimates use the combined CTF revenue growth rate of 3.22 percent. The dollars used for the base year are the five-year average distributions to each mode from FYs 2001 through 2005. The five-year average numbers were used in lieu of the irregular FY 2005 distributions resulting from revenue reductions combined with lack of appropriated funds for some programs, vetoes, and Act 51 funding "floor" requirements.

Table 11: CTF State Revenue Forecast by Mode in 2005 dollars (in millions)

	<i>Growth Rate</i>	<i>FY 2006 - FY 2030</i>
Transit	3.22%	\$4,716.9
Intercity Passenger and Freight		
Intercity Passenger	3.22%	\$309.9
Marine and Port	3.22%	\$27.9
Rail Freight	3.22%	\$179.6

Source: Multi-Modal Transportation Services Bureau

4.2.2 Other Federal Surface Transportation Forecast

4.2.2.1 Federal Transit Revenue Forecasting

Michigan is estimating federal transit aid based on the level of FY 2005 funds awarded directly to MDOT. The growth rate was an average of all FTA appropriations nationwide from 1961 to 2005 based on figures published by FTA. Using a base of \$23.8 million as shown in **Table 1**, an annual growth rate of 4.34 percent and an inflation rate of 3.10 percent, MDOT estimates the total transit funding that will come to MDOT over the period of 2006 to 2030 will be \$1.08 billion, which is equal to \$696 million in FY 2005 dollars (**Table 12**).

Table 12: Federal Transit and Intercity Passenger and Freight Revenue Forecast in 2005 dollars (in millions)

	<i>Growth Rate</i>	<i>FY 2006 - FY 2030</i>
Federal Transit Revenue	4.3%	\$696.0
Federal Intercity Passenger and Freight Revenue		
Intercity Bus	4.3%	\$41.1
Passenger Rail – projections not possible		
Rail Freight – projections not possible		
Marine and Port – projections not possible		

Source: MDOT, Multi-Modal Transportation Services Bureau

4.2.2.2 Intercity Bus Forecast

Michigan is estimating federal intercity bus funding based on the level of FY 2005 Section 5311 funds awarded directly to MDOT. As described previously, Section 5311f requires that 15 percent of Section 5311 apportionment be used to support intercity bus transportation unless the state certifies that the intercity service needs of the state are being met. The growth rate used was the average of all FTA appropriations nationwide from 1961 to 2005, based on figures published by FTA. Using a base of \$1.4 million, an annual growth rate of 4.34 percent and an inflation rate of 3.10 percent, MDOT estimates the total federal intercity bus funding that will come to MDOT over the period of 2006 to 2030 will be \$63.9 million, which is equal to \$41.1 million in FY 2005 dollars.

4.2.2.3 Passenger Rail Forecast

As federal funding for passenger rail programs has traditionally been limited to discretionary earmarks and competitive programs, it seems unrealistic to forecast revenues beyond what is earmarked in SAFETEA-LU. That single earmark, again, provides \$100 million to the Ann Arbor to Detroit Transit project, contingent upon the project qualifying as a “New Start.”

4.2.2.4 New Starts Forecast

Michigan received two Section 5309 Capital Investment “New Starts” earmarks under SAFETEA-LU as described in **Section 2.1.2.4**. However, since earmarks are discretionary, it seems unrealistic to forecast those revenues beyond what is included in SAFETEA-LU.

4.2.2.5 Rail Freight Forecast

As federal funding for rail freight programs has traditionally been limited to discretionary earmarks, it seems unrealistic to forecast revenues beyond what is earmarked in SAFETEA-LU. Those earmarks are shown in **Section 2.1.2.5**.

4.2.2.6 Marine Port

As federal funding for marine port programs has traditionally been limited to discretionary earmarks and competitive programs, it seems unrealistic to forecast revenues beyond what is earmarked in SAFETEA-LU or otherwise known at this point. No earmarks for marine port activities are included in SAFETEA-LU, but the federal commitment for the new Soo Lock remains in place.

4.3 Federal and State Aviation Revenue Forecasts

4.3.1 Federal Aviation Revenue Forecast

4.3.1.1 Issues

The president’s proposed FY 2007 budget reduced the congressionally-approved allocation for airport improvement projects from \$3.6 billion to \$2.75 billion. When the level of approved funding falls below \$3.2 billion, a number of programs are substantially affected:

- Minimum Primary entitlement funds fall from \$1 million to \$650,000. This reduces funding to six Michigan airports. Primary entitlements at other primary airports would be reduced by half. This affects another six airports. Additionally, two airports may be affected based on a current review of their primary status.
- The Non-Primary Entitlement (NPE) program would be eliminated. This currently provides \$150,000 per year to all publicly-owned airports named in the National Plan of Integrated Airport Systems. This will affect 79 airports in Michigan. Projects scheduled for construction of hangars, terminals and fuel systems would likely not be funded under the proposed reduction as these are typically funded with NPE funds.
- State apportionment would be reduced from 20 percent to 18.5 percent. Once all of the formulas are applied without NPE dollars the amount of discretionary funds available to Michigan would increase, but the overall (AIP) funds to the state would likely decrease.
- The amount of funds for Essential Air Service (EAS) available to Michigan airports would be cut by \$1.6 million. Currently, four airports receive these funds.

Furthermore, with the financial difficulties currently facing Northwest Airlines, it is possible they will seek EAS subsidy at one or more of the small Michigan communities they serve. However, with reduced EAS funding, US DOT would be unable to provide subsidy to Northwest and a cessation of service to these communities would be likely.

- Under the Administration's budget, the Small Community Air Service Development Program (SCASD) would not receive funding in FY 2007. In FY 2006, two Michigan airport applications were approved, totaling over \$1 million.
- The Federal Contract Tower Cost-Share program would be eliminated. In Michigan, this would affect airports by shifting over \$340,000 in costs from the FAA to the county. Local officials indicate this would likely mean the closure of these important facilities.

4.3.1.2 Federal Aviation Funds Growth Rate

The nation is faced with a dilemma of how to adequately fund aviation transportation infrastructure needs and FAA operations. The existing authorization for federal programs to maintain and improve the national aviation system will expire in 2007. Aviation funds at the federal and state levels are supported by user fees paid through fuel taxes, landing fees, passenger ticket or segment taxes, or facility rents. Whether those fees as currently assessed and/or levied fully cover the cost of the services provided to the commercial service and general aviation sectors likely will impact growth of the industry.

The aviation industry itself is undergoing restructuring brought about in part, by escalating costs of operation, such as rising jet fuel prices. Major airline corporations are in bankruptcy and their future reorganized state will affect transportation service and public funding that could be available. The FAA is undergoing a major reorganization of its operations as well, and has privatized certain previously publicly provided services, such as Flight Services, as a way to reduce costs yet provide necessary services to its customers. It is uncertain that the level of federal assistance that may be available in the future will improve significantly.

Based on the above discussion, MDOT is not forecasting any growth in federal aviation revenues at this time.

4.3.1.3 Federal Aviation Funds Forecast

Federal aviation funds forecast to aid Michigan airport improvements will remain at approximately \$104 million annually. Reasons for the "no growth" are provided above. However, with no resolution of national aviation funding issues coupled with the cost of living adjustments anticipated over the next 25 years, purchasing power will be diminished.

4.3.2 State Aviation Revenue Forecast

4.3.2.1 Issues

The largest revenue source to the State Aeronautics Fund (SAF) is the aviation fuel tax. Over the last 10 years, sales of both aviation gas and jet fuel have decreased. The tax, at three cents per gallon (with a 1.5 cents per gallon refund available to commercial interstate carriers operating scheduled services), has not been changed since its inception. No assumption is being made that it will change during the forecast period.

Rising costs of fuel and expense of airplane operation have resulted in a decrease in flying of airplanes utilizing aviation gas (commonly referred to “av gas”), with nearly 12 million gallons being sold in 1995, and only slightly more than four million gallons being sold in 2005. In 1995, over 439 million gallons of jet fuel was sold, with refunds being made on 297 million gallons. Ten years later in 2005, just over 361 million gallons of jet fuel were sold, and refunds were applied to nearly 208 million gallons. Restructuring of commercial airlines, use of more fuel-efficient aircraft and the need to reduce overall operating costs to restore profitability have tempered the consumption of jet fuel.

The Airport Parking Tax generates \$6 million annually to the SAF, which is restricted for use in repaying bonds, fund state/local projects, and to provide match funds for federal grants for safety and protection projects. These monies are not expected to be available once the bonds have been paid off.

The authorization for Airport Safety & Protection Program bonds will expire in 2007. No additional bonding authority is anticipated throughout the study period.

Other sources of revenue to the SAF are minimal in comparison to the aviation fuel tax. Aircraft registrations, which vary slightly from year to year, and other licensing fees are anticipated to be fairly constant and will not have a material effect upon the SAF.

4.3.2.2 Growth Rate

Based on the description of issues set forth above, MDOT does not foresee an increase in the SAF revenues over the forecast period.

4.3.2.3 Forecast

Revenues to the SAF considering all sources excluding federal, Airport Parking Tax, and a one-time restricted use General Fund contribution in 2001, remained fairly constant from FYs 1986 through 2005, with an annual average increase of only 1.04 percent.

There is no reason to anticipate that future revenues will grow at an increased rate, so the forecast uses the average annual increase of 1.04 percent. Assuming an annual inflation rate of 3.10 percent, the purchasing power of the SAF will be reduced annually. As shown in the attached calculation, revenue to the SAF in 2030 will be \$14,627,329. However, in 2005 dollars, the purchasing power only would be \$6,818,650.

4.4 Total Revenue Forecast

Table 13 summarizes the total (state and federal) forecasted transportation revenues available to MDOT by mode.

Table 13: 2030 MDOT Transportation Revenue Forecast in 2005 Dollars (in millions)

	<i>FY 2006 –2030 Estimate</i>		
	<i>Federal</i>	<i>State</i>	<i>Total</i>
Highway Program	\$21,726.5	\$21,179.8	\$42,906.3
Transit Program	\$696.0	\$4,716.9	\$5,412.9
Intercity Passenger and Freight Program*	**\$41.1	\$517.4	\$558.5
Aeronautics Program	\$1,791.0	\$219.5	\$2,010.5
<i>Total MDOT Transportation Revenue Forecast</i>	<i>\$24,254.6</i>	<i>\$26,633.6</i>	<i>\$50,888.2</i>

Source: MDOT, Bureau of Transportation Planning

Multi-Modal Transportation Services Bureau, Aviation Services Division

* Includes Intercity Bus, Passenger Rail, Rail Freight and Marine/Port programs.

** Forecast dedicated entirely to the Intercity Bus program. No forecasted revenue for the Passenger Rail, Rail Freight or Marine Port programs.

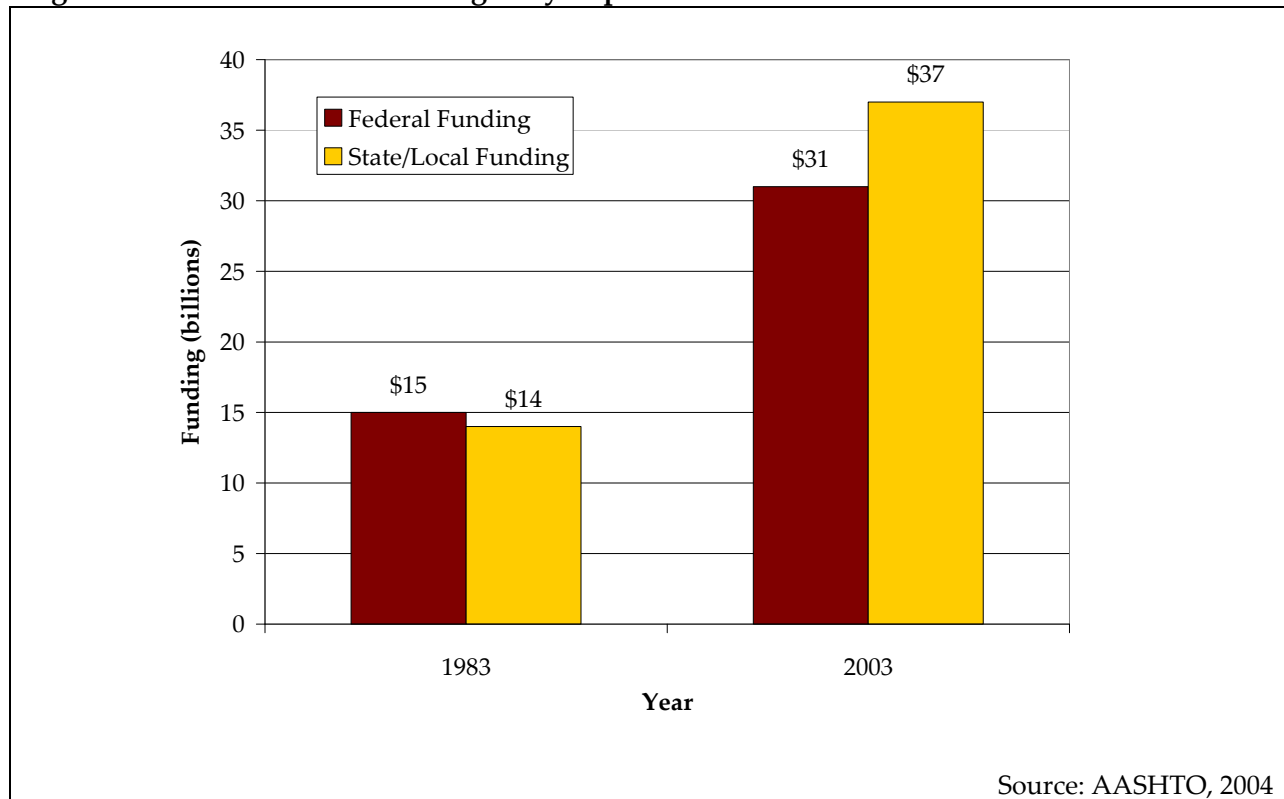
Chapter 5. Long Range Transportation Revenue Issues

This chapter is intended to identify issues that might affect the revenue estimates projected earlier within this report. These issues may have an impact at the federal and state level, but are too difficult to quantify to be documented into the existing revenue estimates at this time.

5.1 Federal Funding Issues

Federal data indicates that highway capital investment from state and local investments at the national level has increased from \$14 billion in 1983 to \$37 billion in 2003. Federal investment increased from \$15 billion to \$31 billion. Therefore, in the last 20 years, states and local units of government are now spending more on the highway capital program than the federal government.

Figure 19: Nationwide Federal Highway Capital Investment



The Federal Highway Trust Fund revenues over time have shifted to have additional functions, particularly at the federal level (i.e. deviations to General Fund for deficit reduction, funding alternative fuel tax aid). With reauthorization due to occur again in 2009, **uncertainties continue to exist with the Highway Trust Fund**. According to a study by the US Chamber of Commerce, “analysis of recently available Treasury data shows that the Highway Account of the HTF would be in **deficit** starting in 2010, and the Mass Transit Account would be in deficit starting about 2013, assuming level funding of federal programs after 2009.”¹ Unless changes are made in the funding structure, the revenues will continue to erode, possibly continuing to shift the burden of transportation funding to the state and local level.

The current reauthorization bill, SAFETEA-LU, took roughly two years to gain approval from the Congress. **Delay in future funding authorizations** will likely affect project deliverables.

SAFETEA-LU also brought a significant **increase in earmarks**. Earmarks are projects that are typically identified at the local level, but may or may not be a part of the state’s transportation program. However, the earmarked projects count against the state’s entire obligation authority limit. If this trend continues, Michigan will have a more difficult time remaining flexible and responding to state prioritized needs.

¹ US Chamber of Commerce, *Future Highway and Public Transportation Finance*, 2005.

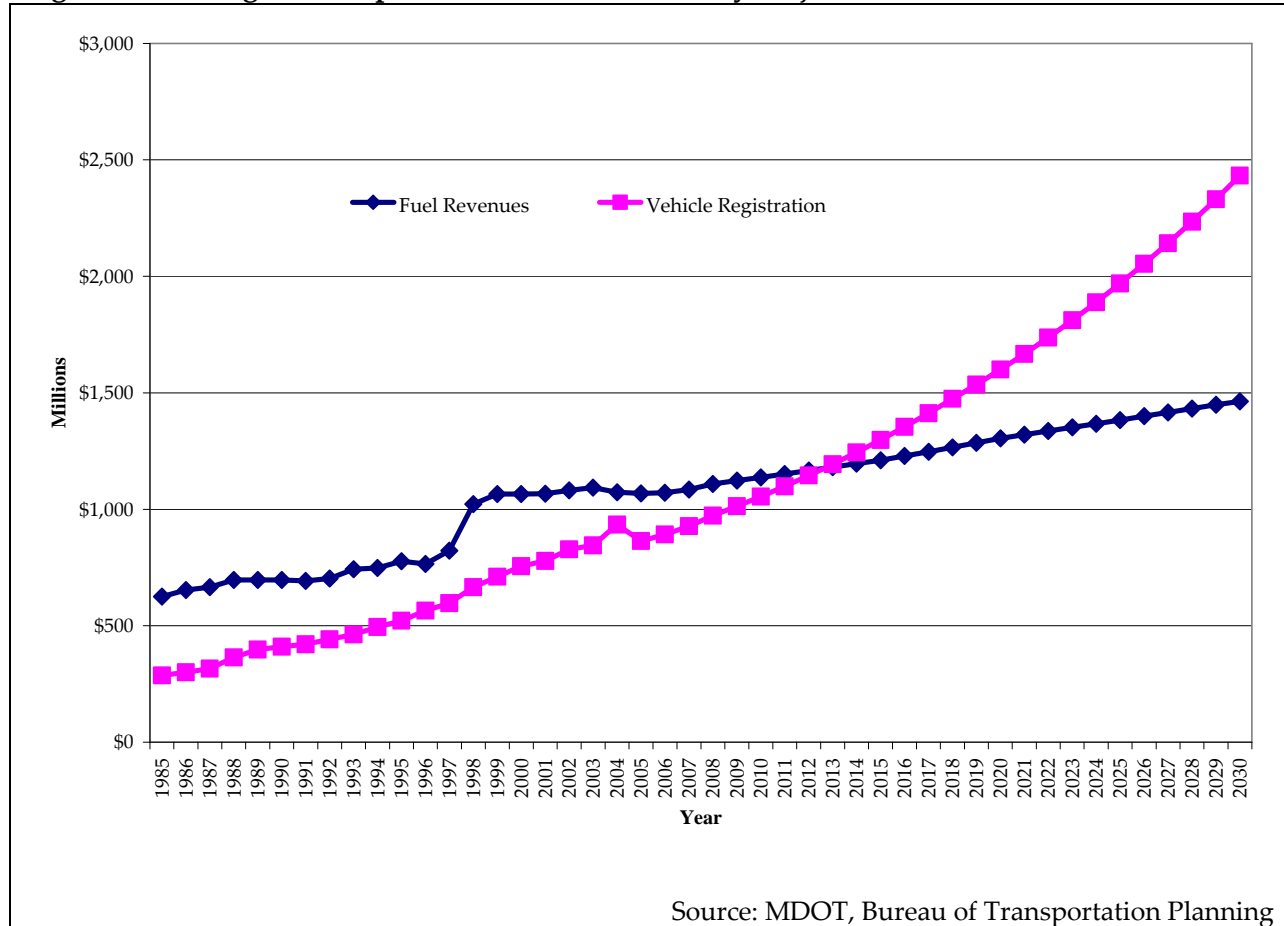
5.2 Effects of Fuel Pricing on State Transportation Revenues

Within the past several years, fuel prices have climbed to record levels throughout the country. One might think that gasoline revenues to the state would increase, with the increased cost of gas. However, the gasoline tax rate is on gallons sold, not on the price of gallons sold. Therefore, price increases actually have a negative effect on revenue generation, because as the price of gas goes up people are less likely to increase their trips, and therefore gallons purchased decreases.

Because the increased gas price trend has been relatively short, in comparison to the timeframe of the forecasts of this Plan, it is difficult to say if fuel pricing will have an effect on the transportation revenue forecasts presented in **Chapter 4**. If the fuel price increases level off and become an accepted price by the consumer, revenues may not be altered that significantly. Growth rates used to generate the fuel revenue forecasts can be adjusted with future updates of this Plan if it is determined that increased fuel pricing will effect long-term revenue forecasts.

In Michigan, vehicle registration revenues may become the predominant source of revenues to the MTF. **Figure 20** depicts how state fuel revenues are forecasted to level off in future years. Vehicle registrations revenues provide a more stable taxing mechanism than fuel revenues – given improved fuel economy in automobiles and trucks. However, the stability of vehicle registrations assumes that vehicle ownership and pricing trends remain stable. In the next five to ten years, the revenues associated with Michigan Vehicle Registrations will surpass the fuel revenue in the MTF.

Figure 20: Michigan Transportation Fund Revenue, by Major Source



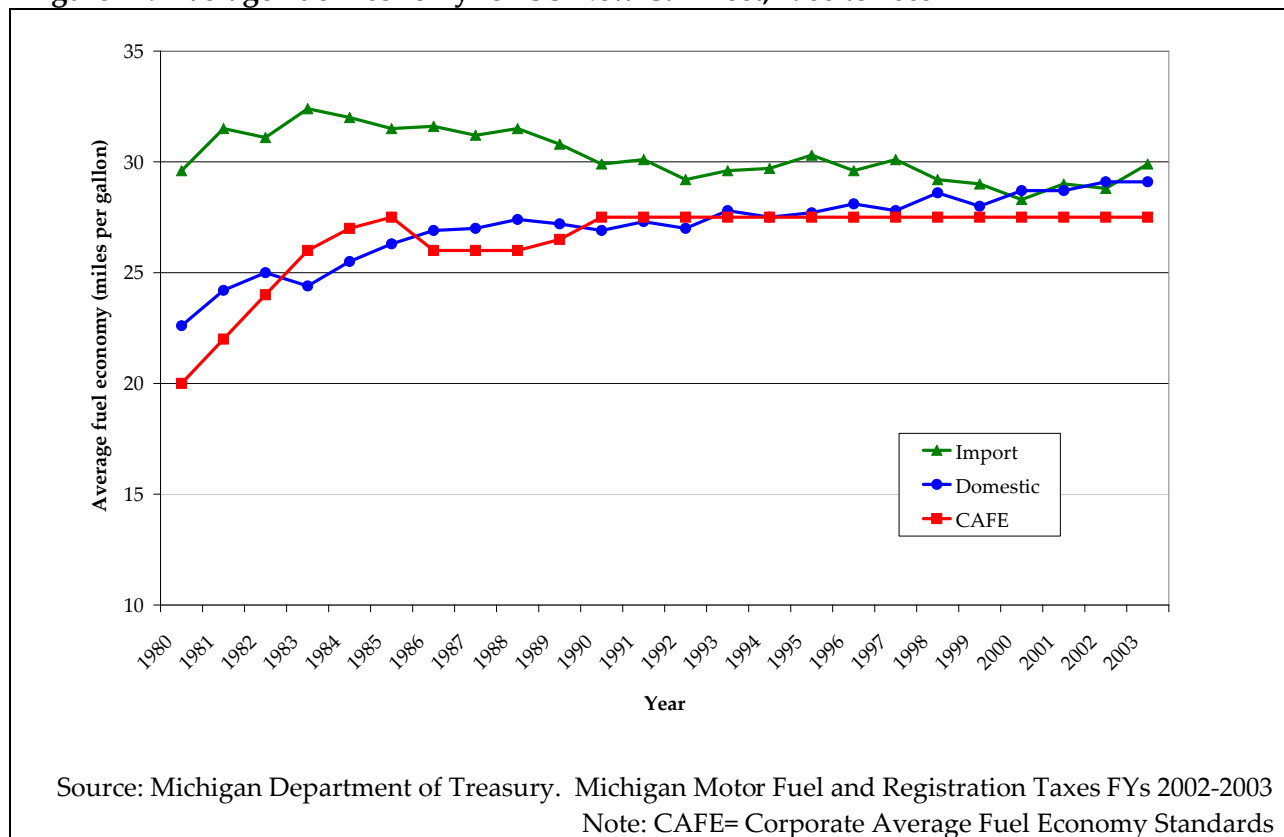
5.3 Fuel Efficient Vehicle Effects

On average, national fuel economy has improved over the past 30 years. These moderate improvements are forecasted to continue into the future. A complete replacement of the current fleet to a fuel-efficient vehicle fleet will take years to accomplish (projections are from 25 to 40 years). Forecasted fuel revenues may decrease due to fuel efficiency. The effects of the continued improvement of fuel economy may create enough pressure for the federal

government and the states to raise fuel tax rates and/or create new revenue sources and/or curtail highway spending.

Figure 21 displays the changes in fleet fuel efficiency since 1980. Nationally, the fleet fuel efficiency increased from 12.9 miles per gallon in 1970, to 20.2 miles per gallon in 2002. Due to fuel efficiency, gas consumption per vehicle has decreased even though vehicle miles traveled has increased over the same time period. In March 2006, new fuel economy standards were established for cars and light trucks. The change eliminates fleet-wide mile-per-gallon averages in favor of a size-based system, which would classify their fuel economy standard based on their “footprint” as defined by the vehicle wheelbase. The light truck target standards will increase from 21.6 to 24 miles per gallon. A further reduction in average fuel consumption per vehicle mile is possible by 2025, if fuel economy improvement is driven by additional regulations or the perpetuation of continued fuel price increases.

Figure 21: Average Fuel Economy for US New Car Fleet, 1980 to 2003



Hybrid vehicle sales are increasing rapidly but still represent a very small percentage of the overall US fleet. “Over the next 10 years hybrids may erode gas tax revenues by between 1 to 3 percent. By the 2025 to 2035 timeframe, however, according to the National Cooperative

Highway Research Program (NCHRP) study, they could erode revenues by 15 percent or more.”²

5.4 Freight Truck Fuel Trends

Large, freight-carrying trucks are also a significant portion of fuel tax revenues; therefore, truck fuel economy trends are also important. “Freight trucks’ share of fuel consumed is projected to grow more slowly because projected fuel economy improvements are greater than those of light duty vehicles. If these projections are realized, the trucking contribution to user fee revenues relative to its share of travel will decline unless legislatures make larger adjustments in truck tax rates than in those affecting light vehicles.”³

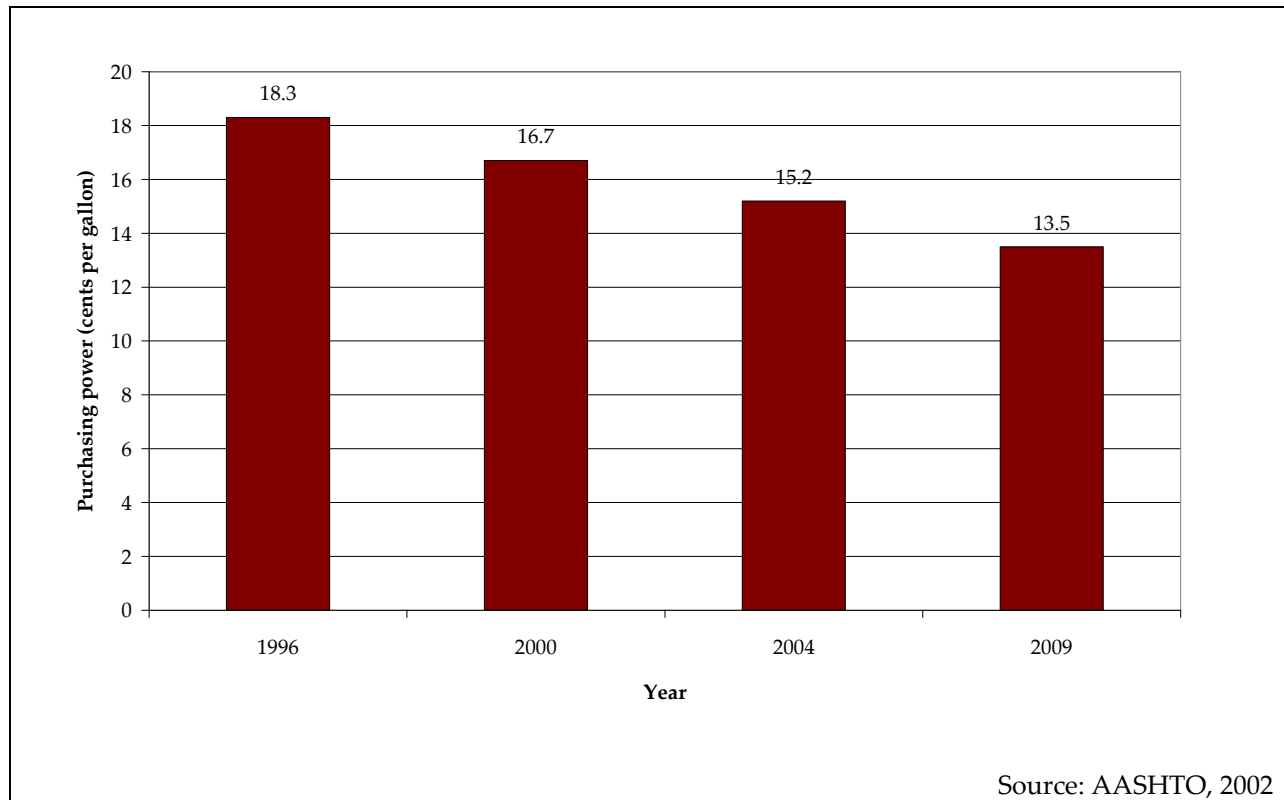
² Kuennen, Tom, **Better Roads**, February 2006, pg. 44.

³ Transportation Research Board, **Special Report 285: The Fuel Tax and Alternatives for Transportation Funding**, Washington DC 2005.

5.5 Inflation Erosion

At the federal level, FHWA recognizes that the cost of goods and services increases as inflation occurs over time. However, the fixed rate of revenues associated with the motor vehicle fuel tax decreases in real value over time. **Figure 22** displays the erosion of the federal tax on gasoline based on cents per gallon. Proposals have been submitted to FHWA from American Association of State Highway and Transportation Officials (AASHTO) to apply an indexing factor to the motor fuel tax, which would provide a means to adjust it for inflation and retain buying power. AASHTO estimates that by 2010, the purchasing power of the Highway Trust Fund revenues will have decreased by 30 percent. This is not the first time this erosion of purchasing power has occurred—the fuel tax was increased in 1990 and 1993, to address the problem of inflation erosion. Currently, the fuel tax is the only major existing federal tax that is not indexed to inflation—automatically adjusting tax rates to account for inflation.

Figure 22: Erosion of the Purchasing Power of the Federal Excise Tax on Gasoline Due to Inflation



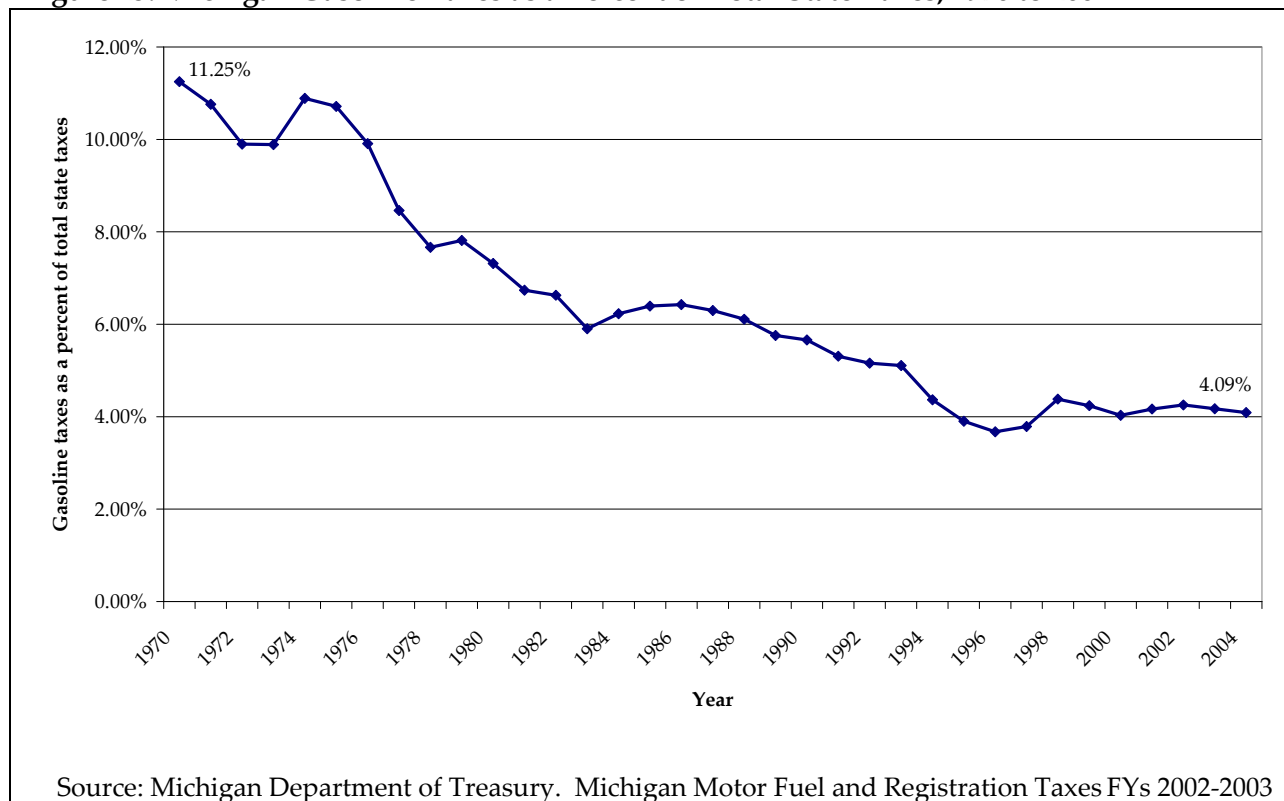
State revenues from fuel taxes have been declining as a percentage of overall taxes. **Table 14** shows gasoline tax rate changes for the corresponding time period, 1970-2004, displayed in **Figure 23**. Similar to the federal fuel tax, the state fuel tax revenues decline in buying power over time because they do not contain an inflation index factor.

Table 14: Michigan Fiscal Year Tax Rate Changes

<i>Fiscal Year</i>	<i>Gasoline Tax Rate Changes (cents)</i>	
	<i>From</i>	<i>To</i>
1973	7	9
1979	9	11
1983	11	13
1984	13	15
1997	15	19

Source: Michigan Department of Treasury. Michigan Motor Fuel and Registration Taxes FYs 2002-2003

Figure 23: Michigan Gasoline Taxes as a Percent of Total State Taxes, 1970 to 2004



5.5.1 Sales Tax Issue with Car Leases

Leasing versus purchasing of vehicles is another issue affecting CTF revenue. State sales tax is applied to vehicles that are purchased through traditional purchasing methods but not to vehicles under a lease/purchase financing plan. When a vehicle is leased, state use tax, not sales tax, is computed on the amount of the monthly rental payment including applicable finance charges. Private sales of used cars and trucks are also subject to use tax instead of sales tax. This use tax revenue is split between the General Fund (67 %) and the School Aid Fund (33 %). The CTF does not receive any use tax revenue from vehicle leases. Allocating a portion of the use tax to the CTF would benefit Michigan's CTF-funded transportation programs but would reduce revenue to the General Fund. (The School Aid Fund share of the use tax is guaranteed by the state Constitution.) Therefore, it is unlikely that any legislation allocating a portion of the use tax to the CTF would be supported under the state's current economic condition.

5.5.2 Future Revenue Increases Must Consider All Modes

There does not appear to be an overwhelming revenue increase for any mode of transportation in Michigan in the next 15 years as shown by MDOT's revenue forecasts. Michigan's citizens and commerce would both benefit by an increase in transportation revenue, federal and state, to MDOT, to help maintain and improve a coordinated transportation system for people and freight. When developing strategies for increasing MDOT's future revenue, we must ensure that these strategies aim for funding and improvements for all modes of travel, rather than pitting the modes against each other. Michigan cannot afford to deprive itself of a successful, integrated transportation system.

Chapter 6. Integration

6.1 One System, Many Financial Sources

The technical reports of the *MI Transportation Plan* describe the emerging needs and the modal components of Michigan's transportation system. Ensuring an integrated system for users to access employment, markets and other economic activities is a critical success factor for the plan.

Achieving an integrated system entails leveraging the financial resources described in the current report into mutually reinforcing programs and projects to support the needs of system users. Consequently, it is beneficial to examine how the financial support for the modal components of Michigan's transportation system may support an integrated system overall.

The financial resources and programs described in this *Finance Technical Report*, as well as in the *Transit Technical Report*, *Intercity Passenger Technical Report*, *Aviation Technical Report*, and the *Highways and Bridges Technical Report*, support individual components of the system. There are designated allocations of transportation funding for roads and bridges, transit, airports, seaports, rail, ferry, and other modes, and there are special earmarks and project resources

within each mode as well. Other programs, such as the enhancement program funds, identify special purposes for special projects that may support multiple modes.

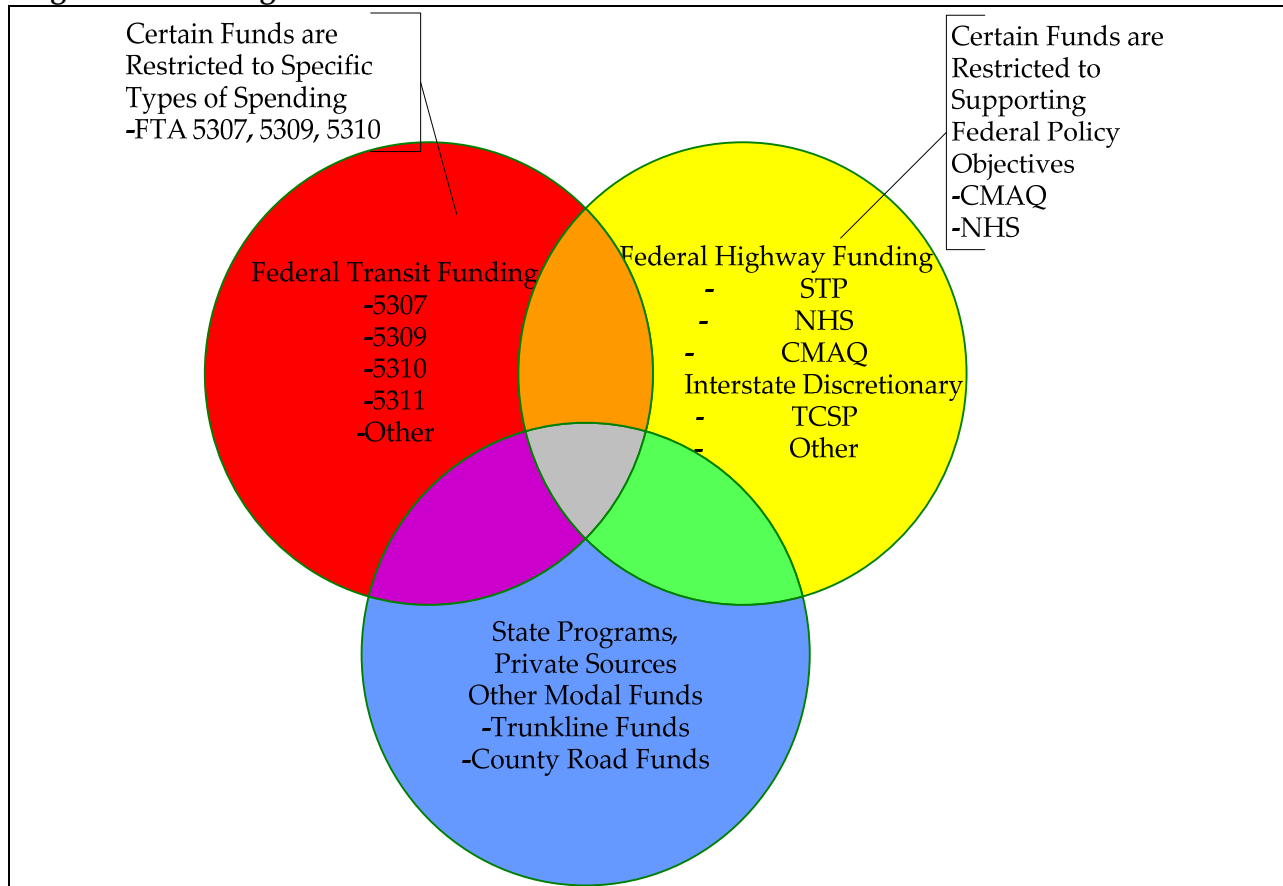
Two factors enable financial resources as described in this report to support an integrated system for Michigan. First, dedicated projects and programs improving one mode or service may have secondary impacts supporting other modes and second, some of the sources of funding offer flexibility regarding the types of projects and services supported.

For example, a roadway safety project at a transit stop may improve the roadway with features making it safer for pedestrian crossing and access both to economic activities and to a transit stop. While such a project may be a highway project, the project supports the performance of the integrated system. Furthermore, some funds (such as enhancement dollars under SAFTEA-LU) may be spent on different types of projects, some of which explicitly support transit, bicycle, and pedestrian complements to the roadway system.

These elements (flexibility of some funding sources and the potential for mode-specific projects) can create overlapping benefits for the integrated system. **Figure 24** illustrates how some types of funding sources available in Michigan, while primarily covering the specific needs of modal programs, also may create overlapping benefits for the system.

Specific funding strategies to apply funding sources through the mechanisms described in this report and potentially entirely new mechanisms will be further explored in the development of “service packages” in the Gap and Investment analysis of the *MI Transportation Plan*.

Figure 24: Funding Restrictions



6.2 Opportunities and Performance Barriers

The targeted investment of federal, state, and local revenues into the transportation system can create a more efficient system, facilitating the mobility of labor and capital in Michigan’s economy. Specific projects and services, regardless of their funding source, may be targeted to remove impediments to safety, congestion delay, and adverse environmental impacts of transportation. While this technical report does not address the specific opportunities or performance barriers to mobility and efficiency that may be achieved, leveraging investments in more flexible funding categories can enable Michigan to achieve a more integrated system. The

principle of leverage in financial resources is further addressed in the *Integration Technical Report*.

It is also understood that targeted transportation investments may trigger latent demand for participation in Michigan's workforce and activities as well as access to resources and markets supporting the state's economic development. The Transportation Economic Development Fund described in **Section 2.2.5** of this report specifically supports projects that may trigger economic activity in Michigan. It is important to note that all of the funding sources described in this plan may, at times, support projects and services triggering economic vitality through the achievement of other programmatic objectives.

6.3 Integrating Finance

In the Gap and Investment analysis of the *MI Transportation Plan*, service packages (or investment strategies packaged together) are offered to leverage sources of financial revenue to meet the user needs explored in the technical reports. The findings highlighted in the integration sections of other technical reports regarding modal integration and opportunities and performance barriers are summarized in the *Integration Technical Report* of the *MI Transportation Plan* which will provide guidance in this process. Integrating financial revenues in support of a statewide transportation vision involves adeptly utilizing transportation revenues with an understanding of the context in which funds and programs are applied to support Michigan's system.



*Providing the highest quality integrated transportation services
for economic benefit and improved quality of life*

